

NACOmatic

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GENERAL INFORMATION

This Airport/Facility Directory is a Civil Flight Information Publication published and distributed every eight weeks by the National Aeronautical Charting Office, FAA, Department of Transportation, Silver Spring, Maryland 20910. It is designed for use with Aeronautical Charts covering the conterminous United States, Puerto Rico and the Virgin Islands.

This directory contains all open to the public airports, seaplane bases and heliports, military facilities, and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally, this directory contains communications data, navigational facilities and certain special notices and procedures.

Military data contained within this publication is provided by the National Geospatial-Intelligence Agency and is intended to provide reference data for military and/or joint civil/military airports. Not all military data contained in this publication is applicable to civil users.

CORRECTIONS, COMMENTS, AND/OR PROCUREMENT

CRITICAL information such as equipment malfunction, abnormal field conditions, hazards to flight, etc., should be reported as soon as possible to the nearest FAA facility, either in person or by reverse charge telephone call.

FOR AIRPORT SUPPLEMENT REVISIONS FORM VISIT WEB SITE: <http://nfdc.faa.gov/portal/airportchanges.do>

FAA, Aeronautical Information Services, ATO-R, Rm. 626
800 Independence Ave., SW
Washington, DC 20591
Telephone 1-866-295-8236
Fax 202-267-5322
Email 9-ATOR-HQ-AIS-AIRPORTCHANGES@FAA.GOV

NOTICE: Changes must be received by the Aeronautical Information Services as soon as possible but not later than the "cut-off" dates listed below to assure publication on the desired effective date.

	Airport Information	Airspace Information*
Effective Date	Cut-off date	Cut-off date
22 Oct 09	9 Sep 09	20 Aug 09
17 Dec 09	4 Nov 09	15 Oct 09
11 Feb 10	30 Dec 09	10 Dec 09
8 Apr 10	24 Feb 10	4 Feb 10
3 Jun 10	21 Apr 10	1 Apr 10
29 Jul 10	16 Jun 10	27 May 10

*Including changes to preferred routes and graphic depictions on charts.

FOR CHARTING ERRORS CONTACT:

FAA, National Aeronautical Charting Office, ATO-W
SSMC-4 Sta. #2335
1305 East West Highway
Silver Spring, MD 20910-3281
Telephone 1-800-626-3677
Email 9-AMC-Aerochart@faa.gov

Frequently asked questions (FAQs) are answered on our web site at www.naco.faa.gov.
See the FAQs prior to contact via toll free number.

FOR PROCUREMENT CONTACT:

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Distribution Division, ATO-W
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Online at www.naco.faa.gov
Email 9-AMC-Chartsales@faa.gov
Telephone 1-800-638-8972
Fax 301-436-6829
or any authorized FAA Chart Agent

New or Changed Information—To alert users of new information or changes to information from the previous issue, a vertical line will be portrayed in the outside margin and extending the full length of the new and/or revised data. This will not apply to the front cover or the airport/facility directory listing.

This Airport/Facility Directory comprises part of the following sections of the United States Aeronautical Information Publication (AIP): GEN, ENR and AD.

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ABBREVIATIONS

The following abbreviations/acronyms are those commonly used within this Directory. Other abbreviations/acronyms may be found in the Legend and are not duplicated below. The abbreviations presented are intended to represent grammatical variations of the basic form. (Example—"req" may mean "request", "requesting", "requested", or "requests").

AAF	Army Air Field	byd	beyond
AB	Airbase	C	Commercial Circuit (Telephone)
abv	above	CGAF	Coast Guard Air Facility
ACC	Air Combat Command; Area Control Center	CGAS	Coast Guard Air Station
acft	aircraft	CIV	Civil
ADCC	Air Defense Control Center	clsd	closed
AER	approach end rwy	comd	command
AFB	Air Force Base	CONUS	Continental United States
AFHP	Air Force Heliport	CSTMS	Customs
afld	airfield	ctc	contact
AFOD	US Army Flight Operations Detachment	ctl	control
AFRC	Armed Forces Reserve Center/Air Force Reserve Command	dalgt	daylight
AFSS	Automated Flight Service Station	Dec	December
AG	Agriculture	DIAP	DoD Instrument Approach Procedure
A-GEAR	Arresting Gear	DoD	Department of Defense
AGL	above ground level	DSN	Defense Switching Network (Telephone)
AHP	Army heliport	dspld	displaced
ALS	Approach Light System	durn	duration
alt	altitude	eff	effective
AMC	Air Mobility Command	emerg	emergency
ANGS	Air National Guard Station	EOR	End of Runway
apch	approach	ETA	Estimated Time of Arrival
Apr	April	ETD	Estimated Time of Departure
APU	Auxiliary Power Unit	exc	except
ARB	Air Reserve Base	extd	extend
arpt	airport	FBO	fixed-base operator
ARS	Air Reserve Station	Feb	February
AS	Air Station	fld	field
ASDE-X	Airport Surface Detection Equipment—Model X	FLIP	Flight Information Publication
ASU	Aircraft Starting Unit	flt	flight
ATC	Air Traffic Control	flw	follow
Aug	August	Fri	Friday
AUW	All Up Weight (gross weight)	FSS	Flight Service Station
avbl	available	GA	glide angle
bcn	beacon	GCA	Ground Controlled Approach
blo	below	GS	glide slope
		haz	hazard
		HQ	Headquarters

CONTINUED ON NEXT PAGE

CONTINUED FROM PRECEDING PAGE

hr	hour	npi	non precision instrument
IAP	Instrument Approach Procedure	NS ABTMT	Noise Abatement
ICAO	International Civil Aviation Organization	NSTD	nonstandard
IFR	Instrument Flight Rules	ntc	notice
ILS	Instrument Landing System	obsn	observation
IM	Inner Marker	Oct	October
IMG	Immigration	OLF	Outlying Field
incr	increase	opr	operate, operator, operational
indef	indefinite	ops	operations
ints	intensity	OTS	out of service
invo	in the vicinity of	ovrn	overrun
IMC	Instrument Meteorological Conditions	PAEW	personnel and equipment working
Jan	January	pat	pattern
JASU	Jet Aircraft Starting Unit	p-line	power line
JOAP	Joint Oil Analysis Program	PMSV	Pilot-to-Metro Service
JOSAC	Joint Operational Support Airlift Center	POL	Petrol, Oils and Lubricants
JRB	Joint Reserve Base	PPR	prior permission required
Jul	July	PRM	Precision Runway Monitoring
Jun	June	PTD	Pilot to Dispatcher
Kt	Knots	RAMCC	Regional Air Movement Control Center
LAA	Local Airport Advisory	req	request
LAHSO	Land and Hold Short Operations	rgt tfc	right traffic
lbs	pounds	RON	Remain Overnight
ldg	landing	rqr	require
lgt	lighted	rstd	restricted
lgts	lights	RSRS	reduced same runway separation
LMM	Compass locator at Middle Marker ILS	rw	runway
LOC	Localizer	Sat	Saturday
LOM	Compass locator at Outer Marker ILS	SELF	Strategic Expeditionary Landing Field
ltd	limited	Sep	September
MACC	Military Area Control Center	SFA	Single Frequency Approach
Mar	March	sfc	surface
MCAF	Marine Corps Air Facility	SFRA	Special Flight Rules Area
MICALF	Marine Corps Auxiliary Landing Field	SOAP	Spectrometric Oil Analysis Program
MCAS	Marine Corps Air Station	SOF	Supervisor of Flying
MCB	Marine Corps Base	SPB	Seaplane Base
med	medium	SR	sunrise
METRO	Pilot-to-Metro voice call	SS	sunset
Mil	military	std	standard
min	minute	Sun	Sunday
MLS	Microwave Landing System	svc	service
MM	Middle Marker of ILS	tfc	traffic
Mon	Monday	thld	threshold
MP	Maintenance Period	Thu	Thursday
MSL	mean sea level	tkf	take-off
MSAW	minimum safe altitude warning	tmp	temporary
NAAS	Naval Auxiliary Air Station	tran	transient
NADC	Naval Air Development Center	Tue	Tuesday
NADEP	Naval Air Depot	twr	tower
NAEC	Naval Air Engineering Center	twy	taxiway
NAES	Naval Air Engineering Station	UC	Under Construction
NAF	Naval Air Facility	USA	United States Army
NALCO	Naval Air Logistics Control Office	USAF	United States Air Force
NALO	Navy Air Logistics Office	USCG	United States Coast Guard
NALF	Naval Auxiliary Landing Field	USN	United States Navy
NAS	Naval Air Station	V	Defense Switching Network (telephone, formerly AUTOVON)
NAWC	Naval Air Warfare Center	VFR	Visual Flight Rules
NAWS	Naval Air Weapons Station	VIP	Very Important Person
ngt	night	VMC	Visual Meteorological Conditions
NOLF	Naval Outlying Field	Wed	Wednesday
Nov	November	wx	weather

DIRECTORY LEGEND

SAMPLE

① CITY NAME
 ② AIRPORT NAME (ALTERNATE NAME) (LTS) (KLTS) CIV/MIL 3 N UTC-6(-5DT) N34°41.93' W99°20.20' JACKSONVILLE
 ③ 200 B S4 FUEL 100 OX 1 TPA-1000(800) AOE Class IV, ARFF Index A NOTAM FILE ORL Not insp. COPTER
 ④ ⑤ ⑥ ⑦ ⑧ ⑨ H-46, L-19C IAP, DIAP, AD

⑩ RWY 18-36: H12004X200 (ASPH-CONC-GRVD)
 S-90, D-160, DT-300 PCN 80 R/B/W/T HIRL CL
 RWY 18: LDIN. MALSF. TDZL. REIL. PAPI(P2R)—GA 3.0° TCH 36'.
 Thld displcd 300'. Trees. Rgt tfc. 0.3° up.
 RWY 36: ALSF1. 0.4° down.
 RWY 09-27: H6000X150 (ASPH) MIRL
 RWY 173-353: H3515X150 (ASPH-PFC) AUW PCN 59 F/A/W/T

⑪ LAND AND HOLD SHORT OPERATIONS
 LANDING HOLD SHORT POINT DIST AVBL
 RWY 18 09-27 6500
 RWY 36 09-27 5400

⑫ RUNWAY DECLARED DISTANCE INFORMATION
 RWY 18: TORA-12004 TODA-12704 ASDA-11704 LDA-11504
 RWY 36: TORA-12004 TODA-12004 ASDA-12004 LDA-11704

⑬ ARRESTING GEAR/SYSTEM
 RWY 18 → HOOK E5 (65' OVRN) BAK-14 BAK-12B (1650')
 BAK-14 BAK-12 (B) (1087') HOOK E5 (74' OVRN) ← RWY 36

⑭ MILITARY SERVICE: A-GEAR E-5 connected on dep end, disconnected on
 apch end. JASU 3(AM32A-60) 2(A/M32A-86)

⑮ ⑯ FUEL J8(Mil) (NC-100, A) FLUID W SP PRESAIR LOX
 OIL O-128 TRAN ALERT Avbl 1300-0200Z†, svc limited weekends.

⑰ ⑱ AIRPORT REMARKS: Special Air Traffic Rules—Part 93, see Regulatory Notices. Attended 1200-0300Z†. Parachute
 Jumping. Deer invov arpt. Heavy jumbo jet training surface to 9000'. Twy A clsd indef. Flight Notification Service
 (ADCUS) avbl.

⑲ MILITARY REMARKS: ANG PPR/Official Business Only. Base OPS DSN 638-4390, C503-335-4222. Ctc Base OPS 15
 minutes prior to ldg and after dep. Limited tran parking.

⑳ WEATHER DATA SOURCES: AWOS-1 120.3 (202) 426-8000. LLWAS.

㉑ COMMUNICATIONS: SFA ATIS 127.25 273.5 (202) 426-8003 UNICOM 122.95 PTD 372.2
 NAME FSS (ORL) on arpt. 123.65 122.65 122.2
 NAME RCO 112.2T 112.1R (NAME RADIO)
 ㉒ NAME APP/DEP CON 128.35 257.725 (1200-0400Z†)
 TOWER 119.65 255.6 (1200-0400Z†) GND CON 121.7 GCO 135.075 (ORLANDO CLNC) CLNC DEL 125.55
 NAME COMD POST (GERONIMO) 311.0 321.4 6761 PMSV METRO 239.8 NAME OPS 257.5

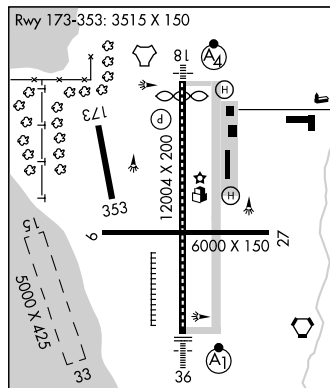
㉓ AIRSPACE: CLASS B See VFR Terminal Area Chart.

㉔ RADIO AIDS TO NAVIGATION: NOTAM FILE ORL. VHF/DF ctc FSS.
 (H) VORTAC 112.2 MCO Chan 59 N28°32.55' W81°20.12' at fld. 1110/8E.
 (H) TACAN Chan 29 CBU (109.2) N28°32.65' W81°21.12' at fld. 1115/8E.
 HERNY NDB (LOM) 221 OR N28°37.40' W81°21.05' 177° 5.4 NM to fld.
 ILS/DME 108.5 I-ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.
 ASR/PAR (1200-0400Z†)

㉕ COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.

HELIPAD H1: H100X75 (ASPH)
 HELIPAD H2: H60X60 (ASPH)
 HELIPORT REMARKS: Helipad H1 lctd on general aviation side and H2 lctd on air carrier side of arpt.

187 TPA 1000(813)
 WATERWAY 15-33: 5000X425 (WATER)
 SEAPLANE REMARKS: Birds roosting and feeding areas along river banks. Seaplanes operating adjacent to SW side of
 arpt not visible from twr and are required to ctc twr.



All bearings and radials are magnetic unless otherwise specified.
 All mileages are nautical unless otherwise noted.

All times are Coordinated Universal Time (UTC) except as noted.

All elevations are in feet above/below Mean Sea Level (MSL) unless otherwise noted.

The horizontal reference datum of this publication is North American Datum of 1983 (NAD83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).

10

SKETCH LEGEND

RUNWAYS/LANDING AREAS

Hard Surfaced	
Metal Surface	
Sod, Gravel, etc.	
Light Plane,	
Ski Landing Area or Water	
Under Construction	
Closed	
Helicopter Landings Area	
Displaced Threshold	
Taxiway, Apron and Stopways ..	

MISCELLANEOUS BASE AND CULTURAL FEATURES

Buildings	
Power Lines	
Fence	
Towers	
Tanks	
Oil Well	
Smoke Stack	
Obstruction	
Controlling Obstruction	
Trees	
Populated Places	
Cuts and Fills	
Cliffs and Depressions ..	
Ditch	
Hill	

RADIO AIDS TO NAVIGATION

VORTAC ...		VOR	
VOR/DME ...		NDB	
TACAN ...		NDB/DME	

MISCELLANEOUS AERONAUTICAL FEATURES

Airport Beacon	
Wind Cone	
Landing Tee	
Tetrahedron	
Control Tower	

APPROACH LIGHTING SYSTEMS

A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g. (A1) Negative symbology, e.g., (A1) indicates Pilot Controlled Lighting (PCL).

Runway Centerline Lighting	
(A) Approach Lighting System ALSF-2 ..	
(A1) Approach Lighting System ALSF-1 ..	
(A2) Short Approach Lighting System SALS/SALSF	
(A3) Simplified Short Approach Lighting System (SSALR) with RAIL	
(A4) Medium Intensity Approach Lighting System (MALSR and MALSF)/(SSALS and SSALF)	
(A5) Medium Intensity Approach Lighting System (MALSR) and RAIL	
(+) Omnidirectional Approach Lighting System (ODALS)	
(D) Navy Parallel Row and Cross Bar ..	
(F) Air Force Overrun	
(V) Visual Approach Slope Indicator with Standard Threshold Clearance provided	
(V2) Pulsating Visual Approach Slope Indicator (PVASI)	
(V3) Visual Approach Slope Indicator with a threshold crossing height to accommodate long bodied or jumbo aircraft	
(V4) Tri-color Visual Approach Slope Indicator (TRCV)	
(V5) Approach Path Alignment Panel (APAP)	
(P) Precision Approach Path Indicator (PAPI)	

LEGEND

This directory is a listing of data on record with the FAA on all open to the public airports, military facilities and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally this listing contains data for associated terminal control facilities, air route traffic control centers, and radio aids to navigation within the conterminous United States, Puerto Rico and the Virgin Islands. Joint civil/military and civil airports are listed alphabetically by state, associated city and airport name and cross-referenced by airport name. Military facilities are listed alphabetically by state and official airport name and cross-referenced by associated city name. Nav aids, flight service stations and remote communication outlets that are associated with an airport, but with a different name, are listed alphabetically under their own name, as well as under the airport with which they are associated.

The listing of an open to the public airport in this directory merely indicates the airport operator's willingness to accommodate transient aircraft, and does not represent that the facility conforms with any Federal or local standards, or that it has been approved for use on the part of the general public. Military and private use facilities published in this directory are open to civil pilots only in an emergency or with prior permission. See Special Notice Section, Civil Use of Military Fields.

The information on obstructions is taken from reports submitted to the FAA. Obstruction data has not been verified in all cases. Pilots are cautioned that objects not indicated in this tabulation (or on the airports sketches and/or charts) may exist which can create a hazard to flight operation. Detailed specifics concerning services and facilities tabulated within this directory are contained in the Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

The legend items that follow explain in detail the contents of this Directory and are keyed to the circled numbers on the sample on the preceding pages.

① CITY/AIRPORT NAME

Civil and joint civil/military airports and facilities in this directory are listed alphabetically by state and associated city. Where the city name is different from the airport name the city name will appear on the line above the airport name. Airports with the same associated city name will be listed alphabetically by airport name and will be separated by a dashed rule line. A solid rule line will separate all others. FAA approved helipads and seaplane landing areas associated with a land airport will be separated by a dotted line. Military airports are listed alphabetically by state and official airport name.

② ALTERNATE NAME

Alternate names, if any, will be shown in parentheses.

③ LOCATION IDENTIFIER

The location identifier is a three or four character FAA code followed by a four-character ICAO code assigned to airports. ICAO codes will only be published at joint civil/military, and military facilities. If two different military codes are assigned, both codes will be shown with the primary operating agency's code listed first. These identifiers are used by ATC in lieu of the airport name in flight plans, flight strips and other written records and computer operations. Zeros will appear with a slash to differentiate them from the letter "O".

④ OPERATING AGENCY

Airports within this directory are classified into two categories, Military/Federal Government and Civil airports open to the general public, plus selected private use airports. The operating agency is shown for military, private use and joint civil/military airports. The operating agency is shown by an abbreviation as listed below. When an organization is a tenant, the abbreviation is enclosed in parenthesis. No classification indicates the airport is open to the general public with no military tenant.

A	US Army	MC	Marine Corps
AFRC	Air Force Reserve Command	N	Navy
AF	US Air Force	NAF	Naval Air Facility
ANG	Air National Guard	NAS	Naval Air Station
AR	US Army Reserve	NASA	National Air and Space Administration
ARNG	US Army National Guard	P	US Civil Airport Wherein Permit Covers
CG	US Coast Guard		Use by Transient Military Aircraft
CIV/MIL	Joint Use Civil/Military	PVT	Private Use Only (Closed to the Public)
DND	Department of National Defense Canada		

⑤ AIRPORT LOCATION

Airport location is expressed as distance and direction from the center of the associated city in nautical miles and cardinal points, e.g., 4 NE.

⑥ TIME CONVERSION

Hours of operation of all facilities are expressed in Coordinated Universal Time (UTC) and shown as "Z" time. The directory indicates the number of hours to be subtracted from UTC to obtain local standard time and local daylight saving time UTC-5(-4DT). The symbol ‡ indicates that during periods of Daylight Saving Time effective hours will be one hour earlier than shown. In those areas where daylight saving time is not observed the (-4DT) and ‡ will not be shown. Daylight saving time is in effect from 0200 local time the second Sunday in March to 0200 local time the first Sunday in November. Canada and all U.S. Conterminous States observe daylight saving time except Arizona and Puerto Rico, and the Virgin Islands. If the state observes daylight saving time and the operating times are other than daylight saving times, the operating hours will include the dates, times and no ‡ symbol will be shown, i.e., April 15-Aug 31 0630-1700Z, Sep 1-Apr 14 0600-1700Z.

7 GEOGRAPHIC POSITION OF AIRPORT—AIRPORT REFERENCE POINT (ARP)

Positions are shown as hemisphere, degrees, minutes and hundredths of a minute and represent the approximate geometric center of all usable runway surfaces.

8 CHARTS

Charts refer to the Sectional Chart and Low and High Altitude Enroute Chart and panel on which the airport or facility is located. Helicopter Chart locations will be indicated as COPTER.

9 INSTRUMENT APPROACH PROCEDURES, AIRPORT DIAGRAM

IAP indicates an airport for which a prescribed (Public Use) FAA Instrument Approach Procedure has been published. DIAP indicates an airport for which a prescribed DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures. See the Special Notice Section of this directory, Civil Use of Military Fields and the Aeronautical Information Manual 5-4-5 Instrument Approach Procedure Charts for additional information. AD indicates an airport for which an airport diagram has been published. Airport diagrams are located in the back of each A/FD volume alphabetically by associated city and airport name.

10 AIRPORT SKETCH

The airport sketch, when provided, depicts the airport and related topographical information as seen from the air and should be used in conjunction with the text. It is intended as a guide for pilots in VFR conditions. Symbology that is not self-explanatory will be reflected in the sketch legend. The airport sketch will be oriented with True North at the top. Airport sketches will be added incrementally.

11 ELEVATION

The highest point of an airport's usable runways measured in feet from mean sea level. When elevation is sea level it will be indicated as "00". When elevation is below sea level a minus "-" sign will precede the figure.

12 ROTATING LIGHT BEACON

B indicates rotating beacon is available. Rotating beacons operate sunset to sunrise unless otherwise indicated in the AIRPORT REMARKS or MILITARY REMARKS segment of the airport entry.

13 SERVICING—CIVIL

S1: Minor airframe repairs.	S5: Major airframe repairs.
S2: Minor airframe and minor powerplant repairs.	S6: Minor airframe and major powerplant repairs.
S3: Major airframe and minor powerplant repairs.	S7: Major powerplant repairs.
S4: Major airframe and major powerplant repairs.	S8: Minor powerplant repairs.

14 FUEL

CODE	FUEL	CODE	FUEL
80	Grade 80 gasoline (Red)	B+	Jet B, Wide-cut, turbine fuel with FS-II*, FP** minus 50° C.
100	Grade 100 gasoline (Green)	J4 (JP4)	(JP-4 military specification) FP** minus 58° C.
100LL	100LL gasoline (low lead) (Blue)	J5 (JP5)	(JP-5 military specification) Kerosene with FS-11, FP** minus 46°C.
115	Grade 115 gasoline (115/145 military specification) (Purple)	J8 (JP8)	(JP-8 military specification) Jet A-1, Kerosene with FS-II*, FP** minus 47°C.
A	Jet A, Kerosene, without FS-II*, FP** minus 40° C.	J8+100	(JP-8 military specification) Jet A-1, Kerosene with FS-II*, FP** minus 47°C, with-fuel additive package that improves thermo stability characteristics of JP-8.
A+	Jet A, Kerosene, with FS-II*, FP** minus 40°C.	J	(Jet Fuel Type Unknown)
A1	Jet A-1, Kerosene, without FS-II*, FP** minus 47°C.	MOGAS	Automobile gasoline which is to be used as aircraft fuel.
A1+	Jet A-1, Kerosene with FS-II*, FP** minus 47° C.		
B	Jet B, Wide-cut, turbine fuel without FS-II*, FP** minus 50° C.		

*(Fuel System Icing Inhibitor)

** (Freeze Point)

NOTE: Certain automobile gasoline may be used in specific aircraft engines if a FAA supplemental type certificate has been obtained. Automobile gasoline, which is to be used in aircraft engines, will be identified as "MOGAS", however, the grade/type and other octane rating will not be published.

Data shown on fuel availability represents the most recent information the publisher has been able to acquire. Because of a variety of factors, the fuel listed may not always be obtainable by transient civil pilots. Confirmation of availability of fuel should be made directly with fuel suppliers at locations where refueling is planned.

15 OXYGEN—CIVIL

OX 1 High Pressure	OX 3 High Pressure—Replacement Bottles
OX 2 Low Pressure	OX 4 Low Pressure—Replacement Bottles

16 TRAFFIC PATTERN ALTITUDE

Traffic Pattern Altitude (TPA)—The first figure shown is TPA above mean sea level. The second figure in parentheses is TPA above airport elevation. Multiple TPA shall be shown as "TPA—See Remarks" and detailed information shall be shown in the Airport or Military Remarks Section. Traffic pattern data for USAF bases, USN facilities, and U.S. Army airports (including those on which ACC or U.S. Army is a tenant) that deviate from standard pattern altitudes shall be shown in Military Remarks.

17 AIRPORT OF ENTRY, LANDING RIGHTS, AND CUSTOMS USER FEE AIRPORTS

U.S. CUSTOMS USER FEE AIRPORT—Private Aircraft operators are frequently required to pay the costs associated with customs processing.

AOE—Airport of Entry. A customs Airport of Entry where permission from U.S. Customs is not required to land. However, at least one hour advance notice of arrival is required.

LRA—Landing Rights Airport. Application for permission to land must be submitted in advance to U.S. Customs. At least one hour advance notice of arrival is required.

NOTE: Advance notice of arrival at both an AOE and LRA airport may be included in the flight plan when filed in Canada or Mexico. Where Flight Notification Service (ADCUS) is available the airport remark will indicate this service. This notice will also be treated as an application for permission to land in the case of an LRA. Although advance notice of arrival may be relayed to Customs through Mexico, Canada, and U.S. Communications facilities by flight plan, the aircraft operator is solely responsible for ensuring that Customs receives the notification. (See Customs, Immigration and Naturalization, Public Health and Agriculture Department requirements in the International Flight Information Manual for further details.)

US Customs Air and Sea Ports, Inspectors and Agents

Northeast Sector (New England and Atlantic States—ME to MD) 407-975-1740

Southeast Sector (Atlantic States—DC, WV, VA to FL) 407-975-1780

Central Sector (Interior of the US, including Gulf states—MS, AL, LA) 407-975-1760

Southwest East Sector (OK and eastern TX) 407-975-1840

Southwest West Sector (Western TX, NM and AZ) 407-975-1820

Pacific Sector (WA, OR, CA, HI and AK) 407-975-1800

18 CERTIFICATED AIRPORT (14 CFR PART 139)

Airports serving Department of Transportation certified carriers and certified under 14 CFR part 139 are indicated by the Class and the ARFF Index; e.g. Class I, ARFF Index A, which relates to the availability of crash, fire, rescue equipment. Class I airports can have an ARFF Index A through E, depending on the aircraft length and scheduled departures. Class II, III, and IV will always carry an Index A.

14 CFR PART 139 CERTIFICATED AIRPORTS
AIRPORT CLASSIFICATIONS

Type of Air Carrier Operation	Class I	Class II	Class III	Class IV
Scheduled Air Carrier Aircraft with 31 or more passenger seats	X			
Unscheduled Air Carrier Aircraft with 31 or more passengers seats	X	X		X
Scheduled Air Carrier Aircraft with 10 to 30 passenger seats	X	X	X	

14 CFR—PART 139 CERTIFICATED AIRPORTS

INDICES AND AIRCRAFT RESCUE AND FIRE FIGHTING EQUIPMENT REQUIREMENTS

Airport Index	Required No. Vehicles	Aircraft Length	Scheduled Departures	Agent + Water for Foam
A	1	<90'	≥1	500#DC or HALON 1211 or 450#DC + 100 gal H ₂ O
B	1 or 2	≥90', <126' ----- ≥126', <159'	≥5 ----- <5	Index A + 1500 gal H ₂ O
C	2 or 3	≥126', <159' ----- ≥159', <200'	≥5 ----- <5	Index A + 3000 gal H ₂ O
D	3	≥159', <200' ----- >200'	<5	Index A + 4000 gal H ₂ O
E	3	≥200'	≥5	Index A + 6000 gal H ₂ O

> Greater Than; < Less Than; ≥ Equal or Greater Than; ≤ Equal or Less Than; H₂O—Water; DC—Dry Chemical.

NOTE: The listing of ARFF index does not necessarily assure coverage for non-air carrier operations or at other than prescribed times for air carrier. ARFF Index Ltd.—indicates ARFF coverage may or may not be available, for information contact airport manager prior to flight.

19 NOTAM SERVICE

All public use landing areas are provided NOTAM "D" (distant dissemination) and NOTAM "L" (local dissemination) service. Airport NOTAM file identifier is shown for individual airports, e.g. "NOTAM FILE IAD". See AIM, Basic Flight Information and

ATC Procedures for detailed description of NOTAM's. Current NOTAMS are available from Flight Service Stations at 1-800-WX-BRIEF. Real time Military NOTAMS are available using the DoD Internet NOTAM Distribution System (DINS) www.notams.jcs.mil.

20 FAA INSPECTION

All airports not inspected by FAA will be identified by the note: Not insp. This indicates that the airport information has been provided by the owner or operator of the field.

21 RUNWAY DATA

Runway information is shown on two lines. That information common to the entire runway is shown on the first line while information concerning the runway ends is shown on the second or following line. Runway direction, surface, length, width, weight bearing capacity, lighting, and slope, when available are shown for each runway. Multiple runways are shown with the longest runway first. Direction, length, width, and lighting are shown for sea-lanes. The full dimensions of helipads are shown, e.g., 50X150. Runway data that requires clarification will be placed in the remarks section.

RUNWAY DESIGNATION

Runways are normally numbered in relation to their magnetic orientation rounded off to the nearest 10 degrees. Parallel runways can be designated L (left)/R (right)/C (center). Runways may be designated as STOL, Ultralight, or assault strips. Assault strips are shown by magnetic bearing.

RUNWAY DIMENSIONS

Runway length and width are shown in feet. Length shown is runway end to end including displaced thresholds, but excluding those areas designed as overruns.

RUNWAY SURFACE AND LENGTH

Runway lengths prefixed by the letter "H" indicate that the runways are hard surfaced (concrete, asphalt, or part asphalt-concrete). If the runway length is not prefixed, the surface is sod, clay, etc. The runway surface composition is indicated in parentheses after runway length as follows:

(AFSC)—Aggregate friction seal coat	(GRVL)—Gravel, or cinders	(PSP)—Pierced steel plank
(ASPH)—Asphalt	(MATS)—Pierced steel planking, landing mats, membranes	(RFSC)—Rubberized friction seal coat
(CONC)—Concrete	(PEM)—Part concrete, part asphalt	(TURF)—Turf
(DIRT)—Dirt	(PFC)—Porous friction courses	(TRTD)—Treated
(GRVD)—Grooved		(WC)—Wire combed

RUNWAY WEIGHT BEARING CAPACITY

Runway strength data shown in this publication is derived from available information and is a realistic estimate of capability at an average level of activity. It is not intended as a maximum allowable weight or as an operating limitation. Many airport pavements are capable of supporting limited operations with gross weights in excess of the published figures. Permissible operating weights, insofar as runway strengths are concerned, are a matter of agreement between the owner and user. When desiring to operate into any airport at weights in excess of those published in the publication, users should contact the airport management for permission. Runway strength figures are shown in thousand of pounds, with the last three figures being omitted. Add 000 to figure following S, D, 2S, 2T, AUW, SWL, etc., for gross weight capacity. A blank space following the letter designator is used to indicate the runway can sustain aircraft with this type landing gear, although definite runway weight bearing capacity figures are not available, e.g., S, D. Applicable codes for typical gear configurations with S=Single, D=Dual, T=Triple and Q=Quadruple:

CURRENT	NEW	NEW DESCRIPTION
S	S	Single wheel type landing gear (DC3), (C47), (F15), etc.
D	D	Dual wheel type landing gear (BE1900), (B737), (A319), etc.
T	D	Dual wheel type landing gear (P3, C9).
ST	2S	Two single wheels in tandem type landing gear (C130).
TRT	2T	Two triple wheels in tandem type landing gear (C17), etc.
DT	2D	Two dual wheels in tandem type landing gear (B707), etc.
TT	2D	Two dual wheels in tandem type landing gear (B757, KC135).
SBTT	2D/D1	Two dual wheels in tandem/dual wheel body gear type landing gear (KC10).
None	2D/2D1	Two dual wheels in tandem/two dual wheels in tandem body gear type landing gear (A340-600).
DDT	2D/2D2	Two dual wheels in tandem/two dual wheels in double tandem body gear type landing gear (B747, E4).
TTT	3D	Three dual wheels in tandem type landing gear (B777), etc.
TT	D2	Dual wheel gear two struts per side main gear type landing gear (B52).
TDT	C5	Complex dual wheel and quadruple wheel combination landing gear (C5).

AUW—All up weight. Maximum weight bearing capacity for any aircraft irrespective of landing gear configuration.

SWL—Single Wheel Loading. (This includes information submitted in terms of Equivalent Single Wheel Loading (ESWL) and Single Isolated Wheel Loading).

PSI—Pounds per square inch. PSI is the actual figure expressing maximum pounds per square inch runway will support, e.g., (SWL 000/PSI 535).

Omission of weight bearing capacity indicates information unknown.

The ACN/PCN System is the ICAO standard method of reporting pavement strength for pavements with bearing strengths greater than 12,500 pounds. The Pavement Classification Number (PCN) is established by an engineering assessment of the runway. The PCN is for use in conjunction with an Aircraft Classification Number (ACN). Consult the Aircraft Flight Manual, Flight Information Handbook, or other appropriate source for ACN tables or charts. Currently, ACN data may not be available for all aircraft. If an ACN table or chart is available, the ACN can be calculated by taking into account the aircraft weight, the pavement type, and the subgrade category. For runways that have been evaluated under the ACN/PCN system, the PCN will be shown as a five-part code (e.g. PCN 80 R/B/W/T). Details of the coded format are as follows:

- (1) The PCN NUMBER—The reported PCN indicates that an aircraft with an ACN equal or less than the reported PCN can operate on the pavement subject to any limitation on the tire pressure.
- (2) The type of pavement:
 - R — Rigid
 - F — Flexible
- (3) The pavement subgrade category:
 - A — High
 - B — Medium
 - C — Low
 - D — Ultra-low
- (4) The maximum tire pressure authorized for the pavement:
 - W — High, no limit
 - X — Medium, limited to 217 psi
 - Y — Low, limited to 145 psi
 - Z — Very low, limited to 73 psi
- (5) Pavement evaluation method:
 - T — Technical evaluation
 - U — By experience of aircraft using the pavement

NOTE: Prior permission from the airport controlling authority is required when the ACN of the aircraft exceeds the published PCN or aircraft tire pressure exceeds the published limits.

RUNWAY LIGHTING

Lights are in operation sunset to sunrise. Lighting available by prior arrangement only or operating part of the night and/or pilot controlled lighting with specific operating hours are indicated under airport or military remarks. At USN/USMC facilities lights are available only during airport hours of operation. Since obstructions are usually lighted, obstruction lighting is not included in this code. Unlighted obstructions on or surrounding an airport will be noted in airport or military remarks. Runway lights nonstandard (NSTD) are systems for which the light fixtures are not FAA approved L-800 series: color, intensity, or spacing does not meet FAA standards. Nonstandard runway lights, VASI, or any other system not listed below will be shown in airport remarks or military service. Temporary, emergency or limited runway edge lighting such as flares, smudge pots, lanterns or portable runway lights will also be shown in airport remarks or military service. Types of lighting are shown with the runway or runway end they serve.

NSTD—Light system fails to meet FAA standards.

LIRL—Low Intensity Runway Lights.

MIRL—Medium Intensity Runway Lights.

HIRL—High Intensity Runway Lights.

RAIL—Runway Alignment Indicator Lights.

REIL—Runway End Identifier Lights.

CL—Centerline Lights.

TDZL—Touchdown Zone Lights.

ODALS—Omni Directional Approach Lighting System.

AF OVRN—Air Force Overrun 1000' Standard Approach Lighting System.

LDIN—Lead-In Lighting System.

MALS—Medium Intensity Approach Lighting System.

MALSF—Medium Intensity Approach Lighting System with Sequenced Flashing Lights.

MALSR—Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights.

SALS—Short Approach Lighting System.

SALSF—Short Approach Lighting System with Sequenced Flashing Lights.

SSALS—Simplified Short Approach Lighting System.

SSALF—Simplified Short Approach Lighting System with Sequenced Flashing Lights.

SSALR—Simplified Short Approach Lighting System with Runway Alignment Indicator Lights.

ALSAF—High Intensity Approach Lighting System with Sequenced Flashing Lights.

ALSF1—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category I, Configuration.

ALSF2—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category II, Configuration.

SF—Sequenced Flashing Lights.

OLS—Optical Landing System.

WAVE—OFF.

NOTE: Civil ALSF2 may be operated as SSALR during favorable weather conditions. When runway edge lights are positioned more than 10 feet from the edge of the usable runway surface a remark will be added in the "Remarks" portion of the airport entry. This is applicable to Air Force, Air National Guard and Air Force Reserve Bases, and those joint civil/military airfields on which they are tenants.

VISUAL GLIDESLOPE INDICATORS

APAP—A system of panels, which may or may not be lighted, used for alignment of approach path.

PNIL APAP on left side of runway

PNIR APAP on right side of runway

PAPI—Precision Approach Path Indicator

P2L 2-identical light units placed on left side of runway

P4L 4-identical light units placed on left side of runway

P2R 2-identical light units placed on right side of runway

P4R 4-identical light units placed on right side of runway

PVASI—Pulsating/steady burning visual approach slope indicator, normally a single light unit projecting two colors.

PSIL PVASI on left side of runway

PSIR PVASI on right side of runway

SAVASI—Simplified Abbreviated Visual Approach Slope Indicator

S2L 2-box SAVASI on left side of runway

S2R 2-box SAVASI on right side of runway

TRCV—Tri-color visual approach slope indicator, normally a single light unit projecting three colors.

TRIL TRCV on left side of runway

TRIR TRCV on right side of runway

VASI—Visual Approach Slope Indicator

V2L 2-box VASI on left side of runway

V6L 6-box VASI on left side of runway

V2R 2-box VASI on right side of runway

V6R 6-box VASI on right side of runway

V4L 4-box VASI on left side of runway

V12 12-box VASI on both sides of runway

V4R 4-box VASI on right side of runway

V16 16-box VASI on both sides of runway

NOTE: Approach slope angle and threshold crossing height will be shown when available; i.e., -GA 3.5° TCH 37'.

PILOT CONTROL OF AIRPORT LIGHTING

Key Mike	Function
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-Off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-Off)

Available systems will be indicated in the airport or military remarks, e.g., ACTIVATE HIRL Rwy 07–25, MALSR Rwy 07, and VASI Rwy 07—122.8.

Where the airport is not served by an instrument approach procedure and/or has an independent type system of different specification installed by the airport sponsor, descriptions of the type lights, method of control, and operating frequency will be explained in clear text. See AIM, "Basic Flight Information and ATC Procedures," for detailed description of pilot control of airport lighting.

RUNWAY SLOPE

When available, runway slope data will only be provided for those airports with an approved FAA instrument approach procedure. Runway slope will be shown only when it is 0.3 percent or greater. On runways less than 8000 feet, the direction of the slope up will be indicated, e.g., 0.3% up NW. On runways 8000 feet or greater, the slope will be shown (up or down) on the runway end line, e.g., RWY 13: 0.3% up., RWY 21: Pole. Rgt tfc. 0.4% down.

RUNWAY END DATA

Information pertaining to the runway approach end such as approach lights, touchdown zone lights, runway end identification lights, visual glideslope indicators, displaced thresholds, controlling obstruction, and right hand traffic pattern, will be shown on the specific runway end. "Rgt tfc"—Right traffic indicates right turns should be made on landing and takeoff for specified runway end.

LAND AND HOLD SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for "Land and Hold Short Operations." These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold-short operations and markings.

RUNWAY DECLARED DISTANCE INFORMATION

TORA—Take-off Run Available. The length of runway declared available and suitable for the ground run of an aeroplane take-off.

TODA—Take-off Distance Available. The length of the take-off run available plus the length of the clearway, if provided.

ASDA—Accelerate-Stop Distance Available. The length of the take-off run available plus the length of the stopway, if provided.

LDA—Landing Distance Available. The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

22 ARRESTING GEAR/SYSTEMS

Arresting gear is shown as it is located on the runway. The a-gear distance from the end of the appropriate runway (or into the overrun) is indicated in parentheses. A-Gear which has a bi-direction capability and can be utilized for emergency approach end engagement is indicated by a (B). The direction of engaging device is indicated by an arrow. Up to 15 minutes advance notice may be required for rigging A-Gear for approach and engagement. Airport listing may show availability of other than US Systems. This information is provided for emergency requirements only. Refer to current aircraft operating manuals for specific engagement weight and speed criteria based on aircraft structural restrictions and arresting system limitations.

Following is a list of current systems referenced in this publication identified by both Air Force and Navy terminology:

BI-DIRECTIONAL CABLE (B)

<u>TYPE</u>	<u>DESCRIPTION</u>
BAK-9	Rotary friction brake.
BAK-12A	Standard BAK-12 with 950 foot run out, 1-inch cable and 40,000 pound weight setting. Rotary friction brake.
BAK-12B	Extended BAK-12 with 1200 foot run, 1¼ inch Cable and 50,000 pounds weight setting. Rotary friction brake.
E28	Rotary Hydraulic (Water Brake).
M21	Rotary Hydraulic (Water Brake) Mobile.

The following device is used in conjunction with some aircraft arresting systems:

BAK-14	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to five seconds to fully raise the cable.)
H	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to one and one-half seconds to fully raise the cable.)

UNI-DIRECTIONAL CABLE

<u>TYPE</u>	<u>DESCRIPTION</u>
MB60	Textile brake—an emergency one-time use, modular braking system employing the tearing of specially woven textile straps to absorb the kinetic energy.
E5/E5-1/E5-3	Chain Type. At USN/USMC stations E-5 A-GEAR systems are rated, e.g., E-5 RATING-13R-1100 HW (DRY), 31L/R-1200 STD (WET). This rating is a function of the A-GEAR chain weight and length and is used to determine the maximum aircraft engaging speed. A dry rating applies to a stabilized surface (dry or wet) while a wet rating takes into account the amount (if any) of wet overrun that is not capable of withstanding the aircraft weight. These ratings are published under Military Service.

FOREIGN CABLE

<u>TYPE</u>	<u>DESCRIPTION</u>	<u>US EQUIVALENT</u>
44B-3H	Rotary Hydraulic (Water Brake)	
CHAG	Chain	E-5

UNI-DIRECTIONAL BARRIER

<u>TYPE</u>	<u>DESCRIPTION</u>
MA-1A	Web barrier between stanchions attached to a chain energy absorber.
BAK-15	Web barrier between stanchions attached to an energy absorber (water squeezer, rotary friction, chain). Designed for wing engagement.

NOTE: Landing short of the runway threshold on a runway with a BAK-15 in the underrun is a significant hazard. The barrier in the down position still protrudes several inches above the underrun. Aircraft contact with the barrier short of the runway threshold can cause damage to the barrier and substantial damage to the aircraft.

OTHER

<u>TYPE</u>	<u>DESCRIPTION</u>
EMAS	Engineered Material Arresting System, located beyond the departure end of the runway, consisting of high energy absorbing materials which will crush under the weight of an aircraft.

23 MILITARY SERVICE

Specific military services available at the airport are listed under this general heading. Remarks applicable to any military service are shown in the individual service listing.

24 JET AIRCRAFT STARTING UNITS (JASU)

The numeral preceding the type of unit indicates the number of units available. The absence of the numeral indicates ten or more units available. If the number of units is unknown, the number one will be shown. Absence of JASU designation indicates non-availability.

The following is a list of current JASU systems referenced in this publication:

USAF JASU (For variations in technical data, refer to T.O. 35-1-7.)

ELECTRICAL STARTING UNITS:

A/M32A-86	AC: 115/200v, 3 phase, 90 kva, 0.8 pf, 4 wire DC: 28v, 1500 amp, 72 kw (with TR pack)
MC-1A	AC: 115/208v, 400 cycle, 3 phase, 37.5 kva, 0.8 pf, 108 amp, 4 wire DC: 28v, 500 amp, 14 kw
MD-3	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD-3A	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD-3M	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 500 amp, 15 kw

MD-4	AC: 120/208v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 175 amp, "WYE" neutral ground, 4 wire, 120v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 303 amp, "DELTA" 3 wire, 120v, 400 cycle, 1 phase, 62.5 kva, 0.8 pf, 520 amp, 2 wire
AIR STARTING UNITS	
AM32-95	150 +/- 5 lb/min (2055 +/- 68 cfm) at 51 +/- 2 psia
AM32A-95	150 +/- 5 lb/min @ 49 +/- 2 psia (35 +/- 2 psig)
LASS	150 +/- 5 lb/min @ 49 +/- 2 psia
MA-1A	82 lb/min (1123 cfm) at 130° air inlet temp, 45 psia (min) air outlet press
MC-1	15 cfm, 3500 psia
MC-1A	15 cfm, 3500 psia
MC-2A	15 cfm, 200 psia
MC-11	8,000 cu in cap, 4000 psig, 15 cfm
COMBINED AIR AND ELECTRICAL STARTING UNITS:	
AGPU	AC: 115/200v, 400 cycle, 3 phase, 30 kw gen DC: 28v, 700 amp AIR: 60 lb/min @ 40 psig @ sea level
AM32A-60*	AIR: 120 +/- 4 lb/min (1644 +/- 55 cfm) at 49 +/- 2 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire, 120v, 1 phase, 25 kva DC: 28v, 500 amp, 15 kw
AM32A-60A	AIR: 150 +/- 5 lb/min (2055 +/- 68 cfm) at 51 +/- psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw
AM32A-60B*	AIR: 130 lb/min, 50 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw
*NOTE: During combined air and electrical loads, the pneumatic circuitry takes preference and will limit the amount of electrical power available.	
USN JASU	
ELECTRICAL STARTING UNITS:	
NC-8A/A1	DC: 500 amp constant, 750 amp intermittent, 28v; AC: 60 kva @ .8 pf, 115/200v, 3 phase, 400 Hz.
NC-10A/A1/B/C	DC: 750 amp constant, 1000 amp intermittent, 28v; AC: 90 kva, 115/200v, 3 phase, 400 Hz.
AIR STARTING UNITS:	
GTC-85/GTE-85	120 lbs/min @ 45 psi.
MSU-200NAV/A/U47A-5	204 lbs/min @ 56 psia.
WELLS AIR START SYSTEM	180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. Simultaneous multiple start capability.
COMBINED AIR AND ELECTRICAL STARTING UNITS:	
NCPP-105/RCPT	180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. 700 amp, 28v DC. 120/208v, 400 Hz AC, 30 kva.
JASU (ARMY)	
59B2-1B	28v, 7.5 kw, 280 amp.
OTHER JASU	
ELECTRICAL STARTING UNITS (DND):	
CE12	AC 115/200v, 140 kva, 400 Hz, 3 phase
CE13	AC 115/200v, 60 kva, 400 Hz, 3 phase
CE14	AC/DC 115/200v, 140 kva, 400 Hz, 3 phase, 28vDC, 1500 amp
CE15	DC 22-35v, 500 amp continuous 1100 amp intermittent
CE16	DC 22-35v, 500 amp continuous 1100 amp intermittent soft start
AIR STARTING UNITS (DND):	
CA2	ASA 45.5 psig, 116.4 lb/min
COMBINED AIR AND ELECTRICAL STARTING UNITS (DND)	
CEA1	AC 120/208v, 60 kva, 400 Hz, 3 phase DC 28v, 75 amp AIR 112.5 lb/min, 47 psig
ELECTRICAL STARTING UNITS (OTHER)	
C-26	28v 45kw 115-200v 15kw 380-800 Hz 1 phase 2 wire
C-26-B, C-26-C	28v 45kw: Split Bus: 115-200v 15kw 380-800 Hz 1 phase 2 wire
E3	DC 28v/10kw
AIR STARTING UNITS (OTHER):	
A4	40 psi/2 lb/sec (LPAS Mk12, Mk12L, Mk12A, Mk1, Mk2B)
MA-1	150 Air HP, 115 lb/min 50 psia
MA-2	250 Air HP, 150 lb/min 75 psia
CARTRIDGE:	
MXU-4A	USAF

(25) FUEL—MILITARY

Fuel available through US Military Base supply, DESC Into-Plane Contracts and/or reciprocal agreement is listed first and is followed by (Mil). At commercial airports where Into-Plane contracts are in place, the name of the refueling agent is shown. Military fuel should be used first if it is available. When military fuel cannot be obtained but Into-Plane contract fuel is available, Government aircraft must refuel with the contract fuel and applicable refueling agent to avoid any breach in contract terms and conditions. Fuel not available through the above is shown preceded by NC (no contract). When fuel is obtained from NC sources, local purchase procedures must be followed. The US Military Aircraft Identaplates DD Form 1896 (Jet Fuel), DD Form 1897 (Avgas) and AF Form 1245 (Avgas) are used at military installations only. The US Government Aviation Into-Plane Reimbursement (AIR) Card (currently issued by AVCARD) is the instrument to be used to obtain fuel under a DESC Into-Plane Contract and for NC purchases if the refueling agent at the commercial airport accepts the AVCARD. A current list of contract fuel locations is available online at www.desc.dla.mil/Static/ProductsAndServices.asp; click on the Commercial Airports button.

See legend item 14 for fuel code and description.

(26) SUPPORTING FLUIDS AND SYSTEMS—MILITARY**CODE**

ADI	Anti-Detonation Injection Fluid—Reciprocating Engine Aircraft.
W	Water Thrust Augmentation—Jet Aircraft.
WAI	Water-Alcohol Injection Type, Thrust Augmentation—Jet Aircraft.
SP	Single Point Refueling.
PRESAIR	Air Compressors rated 3,000 PSI or more.
De-Ice	Anti-icing/De-icing/Defrosting Fluid (MIL-A-8243).

OXYGEN:

LPOX	Low pressure oxygen servicing.
HPOX	High pressure oxygen servicing.
LHOX	Low and high pressure oxygen servicing.
LOX	Liquid oxygen servicing.
ORXB	Oxygen replacement bottles. (Maintained primarily at Naval stations for use in acft where oxygen can be replenished only by replacement of cylinders.)
OX	Indicates oxygen servicing when type of servicing is unknown.

NOTE: Combinations of above items is used to indicate complete oxygen servicing available;

LHOXRB	Low and high pressure oxygen servicing and replacement bottles;
LPOXRB	Low pressure oxygen replacement bottles only, etc.

NOTE: Aircraft will be serviced with oxygen procured under military specifications only. Aircraft will not be serviced with medical oxygen.

NITROGEN:

LPNIT	Low pressure nitrogen servicing.
HPNIT	High pressure nitrogen servicing.
LHNIT	Low and high pressure nitrogen servicing.

(27) OIL—MILITARY

US AVIATION OILS (MIL SPECS):

CODE	GRADE, TYPE
0-113	1065, Reciprocating Engine Oil (MIL-L-6082)
0-117	1100, Reciprocating Engine Oil (MIL-L-6082)
0-117+	1100, 0-117 plus cyclohexanone (MIL-L-6082)
0-123	1065, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type III)
0-128	1100, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type II)
0-132	1005, Jet Engine Oil (MIL-L-6081)
0-133	1010, Jet Engine Oil (MIL-L-6081)
0-147	None, MIL-L-6085A Lubricating Oil, Instrument, Synthetic
0-148	None, MIL-L-7808 (Synthetic Base) Turbine Engine Oil
0-149	None, Aircraft Turbine Engine Synthetic, 7.5c St
0-155	None, MIL-L-6086C, Aircraft, Medium Grade
0-156	None, MIL-L-23699 (Synthetic Base), Turboprop and Turboshaft Engines
JOAP/SOAP	Joint Oil Analysis Program. JOAP support is furnished during normal duty hours, other times on request. (JOAP and SOAP programs provide essentially the same service, JOAP is now the standard joint service supported program.)

(28) TRANSIENT ALERT (TRAN ALERT)—MILITARY

Tran Alert service is considered to include all services required for normal aircraft turn-around, e.g., servicing (fuel, oil, oxygen, etc.), debriefing to determine requirements for maintenance, minor maintenance, inspection and parking assistance of transient aircraft. Drag chute backup, specialized maintenance, or extensive repairs will be provided within the capabilities and priorities of the base. Delays can be anticipated after normal duty hours/holidays/weekends regardless of the hours of transient maintenance operation. Pilots should not expect aircraft to be serviced for TURN-AROUNDS during time periods when servicing or maintenance manpower is not available. In the case of airports not operated exclusively by US military, the servicing indicated by the remarks will not always be available for US military

aircraft. When transient alert services are not shown, facilities are unknown. NO PRIORITY BASIS—means that transient alert services will be provided only after all the requirements for mission/tactical assigned aircraft have been accomplished.

29 AIRPORT REMARKS

The Attendance Schedule is the months, days and hours the airport is actually attended. Airport attendance does not mean watchman duties or telephone accessibility, but rather an attendant or operator on duty to provide at least minimum services (e.g., repairs, fuel, transportation).

Airport Remarks have been grouped in order of applicability. Airport remarks are limited to those items of information that are determined essential for operational use, i.e., conditions of a permanent or indefinite nature and conditions that will remain in effect for more than 30 days concerning aeronautical facilities, services, maintenance available, procedures or hazards, knowledge of which is essential for safe and efficient operation of aircraft. Information concerning permanent closing of a runway or taxiway will not be shown. A note "See Special Notices" shall be applied within this remarks section when a special notice applicable to the entry is contained in the Special Notices section of this publication.

Parachute Jumping indicates parachute jumping areas associated with the airport. See Parachute Jumping Area section of this publication for additional information.

Landing Fee indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

Note: Unless otherwise stated, remarks including runway ends refer to the runway's approach end.

30 MILITARY REMARKS

Military Remarks published at a joint Civil/Military facility are remarks that are applicable to the Military. At Military Facilities all remarks will be published under the heading Military Remarks. Remarks contained in this section may not be applicable to civil users. The first group of remarks is applicable to the primary operator of the airport. Remarks applicable to a tenant on the airport are shown preceded by the tenant organization, i.e., (A) (AF) (N) (ANG), etc. Military airports operate 24 hours unless otherwise specified. Airport operating hours are listed first (airport operating hours will only be listed if they are different than the airport attended hours or if the attended hours are unavailable) followed by pertinent remarks in order of applicability. Remarks will include information on restrictions, hazards, traffic pattern, noise abatement, customs/agriculture/immigration, and miscellaneous information applicable to the Military.

Type of restrictions:

CLOSED: When designated closed, the airport is restricted from use by all aircraft unless stated otherwise. Any closure applying to specific type of aircraft or operation will be so stated. USN/USMC/USAF airports are considered closed during non-operating hours. Closed airports may be utilized during an emergency provided there is a safe landing area.

OFFICIAL BUSINESS ONLY: The airfield is closed to all transient military aircraft for obtaining routine services such as fueling, passenger drop off or pickup, practice approaches, parking, etc. The airfield may be used by aircrews and aircraft if official government business (including civilian) must be conducted on or near the airfield and prior permission is received from the airfield manager.

AF OFFICIAL BUSINESS ONLY OR NAVY OFFICIAL BUSINESS ONLY: Indicates that the restriction applies only to service indicated.

PRIOR PERMISSION REQUIRED (PPR): Airport is closed to transient aircraft unless approval for operation is obtained from the appropriate commander through Chief, Airfield Management or Airfield Operations Officer. Official Business or PPR does not preclude the use of US Military airports as an alternate for IFR flights. If a non-US military airport is used as a weather alternate and requires a PPR, the PPR must be requested and confirmed before the flight departs. The purpose of PPR is to control volume and flow of traffic rather than to prohibit it. Prior permission is required for all aircraft requiring transient alert service outside the published transient alert duty hours. All aircraft carrying hazardous materials must obtain prior permission as outlined in AFJI 11-204, AR 95-27, OPNAVINST 3710.7.

Note: OFFICIAL BUSINESS ONLY AND PPR restrictions are not applicable to Special Air Mission (SAM) or Special Air Resource (SPAR) aircraft providing person or persons on board are designated Code 6 or higher as explained in AFJMAN 11-213, AR 95-11, OPNAVINST 3722-8J. Official Business Only or PPR do not preclude the use of the airport as an alternate for IFR flights.

31 WEATHER DATA SOURCES

Weather data sources will be listed alphabetically followed by their assigned frequencies and/or telephone number and hours of operation.

ASOS—Automated Surface Observing System. Reports the same as an AWOS-3 plus precipitation identification and intensity, and freezing rain occurrence (future enhancement).

AWOS—Automated Weather Observing System

AWOS-A—reports altimeter setting (all other information is advisory only).

AWOS-1—reports altimeter setting, wind data and usually temperature, dewpoint and density altitude.

AWOS-2—reports the same as AWOS-1 plus visibility.

AWOS-3—reports the same as AWOS-1 plus visibility and cloud/ceiling data.

See AIM, Basic Flight Information and ATC Procedures for detailed description of AWOS.

HIWAS—See RADIO AIDS TO NAVIGATION

LAWRS—Limited Aviation Weather Reporting Station where observers report cloud height, weather, obstructions to vision, temperature and dewpoint (in most cases), surface wind, altimeter and pertinent remarks.

LLWAS—indicates a Low Level Wind Shear Alert System consisting of a center field and several field perimeter anemometers. SAWRS—identifies airports that have a Supplemental Aviation Weather Reporting Station available to pilots for current weather information.

SWSL—Supplemental Weather Service Location providing current local weather information via radio and telephone.

TDWR—indicates airports that have Terminal Doppler Weather Radar.

WSP—indicates airports that have Weather System Processor.

When the automated weather source is broadcast over an associated airport NAVAID frequency (see NAVAID line), it shall be indicated by a bold ASOS, AWOS, or HIWAS followed by the frequency, identifier and phone number, if available.

32 COMMUNICATIONS

Airport terminal control facilities and radio communications associated with the airport shall be shown. When the call sign is not the same as the airport name the call sign will be shown. Frequencies shall normally be shown in descending order with the primary frequency listed first. Frequencies will be listed, together with sectorization indicated by outbound radials, and hours of operation. Communications will be listed in sequence as follows:

Single Frequency Approach (SFA), Common Traffic Advisory Frequency (CTAF), Automatic Terminal Information Service (ATIS) and Aeronautical Advisory Stations (UNICOM) or (AUNICOM) along with their frequency is shown, where available, on the line following the heading "COMMUNICATIONS." When the CTAF and UNICOM frequencies are the same, the frequency will be shown as CTAF/UNICOM 122.8.

The FSS telephone nationwide is toll free 1-800-WX-BRIEF (1-800-992-7433). When the FSS is located on the field it will be indicated as "on aprt". Frequencies available at the FSS will follow in descending order. Remote Communications Outlet (RCO) providing service to the airport followed by the frequency and FSS RADIO name will be shown when available.

FSS's provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service (AAS) is provided on the CTAF by FSS's for select non-tower airports or airports where the tower is not in operation. (See AIM, Para 4-1-9 Traffic Advisory Practices at Airports Without Operating Control Towers or AC 90-42C.)

Aviation weather briefing service is provided by FSS specialists. Flight and weather briefing services are also available by calling the telephone numbers listed.

Remote Communications Outlet (RCO)—An unmanned air/ground communications facility that is remotely controlled and provides UHF or VHF communications capability to extend the service range of an FSS.

Civil Communications Frequencies—Civil communications frequencies used in the FSS air/ground system are operated on 122.0, 122.2, 123.6; emergency 121.5; plus receive-only on 122.1.

- a. 122.0 is assigned as the Enroute Flight Advisory Service frequency at selected FSS RADIO outlets.
- b. 122.2 is assigned as a common enroute frequency.
- c. 123.6 is assigned as the airport advisory frequency at select non-tower locations. At airports with a tower, FSS may provide airport advisories on the tower frequency when tower is closed.
- d. 122.1 is the primary receive-only frequency at VOR's.
- e. Some FSS's are assigned 50 kHz frequencies in the 122-126 MHz band (eg. 122.45). Pilots using the FSS A/G system should refer to this directory or appropriate charts to determine frequencies available at the FSS or remote facility through which they wish to communicate.

Emergency frequency 121.5 and 243.0 are available at all Flight Service Stations, most Towers, Approach Control and RADAR facilities.

Frequencies published followed by the letter "T" or "R", indicate that the facility will only transmit or receive respectively on that frequency. All radio aids to navigation (NAVAID) frequencies are transmit only.

TERMINAL SERVICES

SFA—Single Frequency Approach.

CTAF—A program designed to get all vehicles and aircraft at airports without an operating control tower on a common frequency.

ATIS—A continuous broadcast of recorded non-control information in selected terminal areas.

D-ATIS—Digital ATIS provides ATIS information in text form outside the standard reception range of conventional ATIS via landline & data link communications and voice message within range of existing transmitters.

AUNICOM—Automated UNICOM is a computerized, command response system that provides automated weather, radio check capability and airport advisory information selected from an automated menu by microphone clicks.

UNICOM—A non-government air/ground radio communications facility which may provide airport information.

PTD—Pilot to Dispatcher.

APP CON—Approach Control. The symbol **®** indicates radar approach control.

TOWER—Control tower.

GCA—Ground Control Approach System.

GND CON—Ground Control.

GCO—Ground Communication Outlet—An unstaffed, remotely controlled, ground/ground communications facility. Pilots at uncontrolled airports may contact ATC and FSS via VHF to a telephone connection to obtain an instrument clearance or close a VFR or IFR flight plan. They may also get an updated weather briefing prior to takeoff. Pilots will use four "key clicks" on the

VHF radio to contact the appropriate ATC facility or six "key clicks" to contact the FSS. The GCO system is intended to be used only on the ground.

DEP CON—Departure Control. The symbol  indicates radar departure control.

CLNC DEL—Clearance Delivery.

PRE TAXI CLNC—Pre taxi clearance.

VFR ADVSY SVC—VFR Advisory Service. Service provided by Non-Radar Approach Control.

Advisory Service for VFR aircraft (upon a workload basis) ctc APP CON.

COMD POST—Command Post followed by the operator call sign in parenthesis.

PMSV—Pilot-to-Metro Service call sign, frequency and hours of operation, when full service is other than continuous.

PMSV installations at which weather observation service is available shall be indicated, following the frequency and/or hours of operation as "Wx obsn svc 1900-0000Z+" or "other times" may be used when no specific time is given. PMSV facilities manned by forecasters are considered "Full Service". PMSV facilities manned by weather observers are listed as "Limited Service".

OPS—Operations followed by the operator call sign in parenthesis.

CON

RANGE

FLT FLW—Flight Following

MEDIVAC

NOTE: Communication frequencies followed by the letter "X" indicate frequency available on request.

AIRSPACE

Information concerning Class B, C, and part-time D and E surface area airspace shall be published with effective times.

Class D and E surface area airspace that is continuous as established by Rulemaking Docket will not be shown.

CLASS B—Radar Sequencing and Separation Service for all aircraft in CLASS B airspace.

CLASS C—Separation between IFR and VFR aircraft and sequencing of VFR arrivals to the primary airport.

TRSA—Radar Sequencing and Separation Service for participating VFR Aircraft within a Terminal Radar Service Area.

Class C, D, and E airspace described in this publication is that airspace usually consisting of a 5 NM radius core surface area that begins at the surface and extends upward to an altitude above the airport elevation (charted in MSL for Class C and Class D). Class E surface airspace normally extends from the surface up to but not including the overlying controlled airspace.

When part-time Class C or Class D airspace defaults to Class E, the core surface area becomes Class E. This will be formatted as:

AIRSPACE: CLASS C svc "times" ctc **APP CON** other times CLASS E:

or

AIRSPACE: CLASS D svc "times" other times CLASS E.

When a part-time Class C, Class D or Class E surface area defaults to Class G, the core surface area becomes Class G up to, but not including, the overlying controlled airspace. Normally, the overlying controlled airspace is Class E airspace beginning at either 700' or 1200' AGL. This will be formatted as:

AIRSPACE: CLASS C svc "times" ctc **APP CON** other times CLASS G, with CLASS E 700' (or 1200') AGL & abv:

or

AIRSPACE: CLASS D svc "times" other times CLASS G with CLASS E 700' (or 1200') AGL & abv:

or

AIRSPACE: CLASS E svc "times" other times CLASS G with CLASS E 700' (or 1200') AGL & abv.

NOTE: AIRSPACE SVC "TIMES" INCLUDE ALL ASSOCIATED ARRIVAL EXTENSIONS. Surface area arrival extensions for instrument approach procedures become part of the primary core surface area. These extensions may be either Class D or Class E airspace and are effective concurrent with the times of the primary core surface area. For example, when a part-time Class C, Class D or Class E surface area defaults to Class G, the associated arrival extensions will default to Class G at the same time. When a part-time Class C or Class D surface area defaults to Class E, the arrival extensions will remain in effect as Class E airspace.

NOTE: CLASS E AIRSPACE EXTENDING UPWARD FROM 700 FEET OR MORE ABOVE THE SURFACE, DESIGNATED IN CONJUNCTION WITH AN AIRPORT WITH AN APPROVED INSTRUMENT PROCEDURE.

Class E 700' AGL (shown as magenta vignette on sectional charts) and 1200' AGL (blue vignette) areas are designated when necessary to provide controlled airspace for transitioning to/from the terminal and enroute environments. Unless otherwise specified, these 700'/1200' AGL Class E airspace areas remain in effect continuously, regardless of airport operating hours or surface area status. These transition areas should not be confused with surface areas or arrival extensions.

(See Chapter 3, AIRSPACE, in the Aeronautical Information Manual for further details)

CONTINUED FROM PRECEDING PAGE

The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB _____	Automatic Weather Broadcast.
DF _____	Direction Finding Service.
DME _____	UHF standard (TACAN compatible) distance measuring equipment.
DME(Y) _____	UHF standard (TACAN compatible) distance measuring equipment that require TACAN to be placed in the "Y" mode to receive DME.
GS _____	Glide slope.
H _____	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts (50 NM at all altitudes).
HH _____	Non-directional radio beacon (homing), power 2,000 watts or more (75 NM at all altitudes).
H-SAB _____	Non-directional radio beacons providing automatic transcribed weather service.
ILS _____	Instrument Landing System (voice, where available, on localizer channel).
IM _____	Inner marker.
ISMLS _____	Interim Standard Microwave Landing System.
LDA _____	Localizer Directional Aid.
LMM _____	Compass locator station when installed at middle marker site (15 NM at all altitudes).
LOM _____	Compass locator station when installed at outer marker site (15 NM at all altitudes).
MH _____	Non-directional radio beacon (homing) power less than 50 watts (25 NM at all altitudes).
MLS _____	Microwave Landing System.
MM _____	Middle marker.
OM _____	Outer marker.
S _____	Simultaneous range homing signal and/or voice.
SABH _____	Non-directional radio beacon not authorized for IFR or ATC. Provides automatic weather broadcasts.
SDF _____	Simplified Direction Facility.
TACAN _____	UHF navigational facility-omnidirectional course and distance information.
VOR _____	VHF navigational facility-omnidirectional course only.
VOR/DME _____	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC _____	Collocated VOR and TACAN navigational facilities.
W _____	Without voice on radio facility frequency.
Z _____	VHF station location marker at a LF radio facility.

ILS FACILITY PERFORMANCE CLASSIFICATION CODES

Codes define the ability of an ILS to support autoland operations. The two portions of the code represent Official Category and farthest point along a Category I, II, or III approach that the Localizer meets Category III structure tolerances.

Official Category: I, II, or III; the lowest minima on published or unpublished procedures supported by the ILS.

Farthest point of satisfactory Category III Localizer performance for Category I, II, or III approaches: A – 4 NM prior to runway threshold, B – 3500 ft prior to runway threshold, C – glide angle dependent but generally 750–1000 ft prior to threshold, T – runway threshold, D – 3000 ft after runway threshold, and E – 2000 ft prior to stop end of runway.

ILS information is tabulated as indicated in the following sample:

ILS/DME 108.5 I-ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.

ILS Facility Performance
Classification Code

FREQUENCY PAIRING PLAN AND MLS CHANNELING

MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL
500	108.10	18X	568	109.45	31Y	636	114.15	88Y
502	108.30	20X	570	109.55	32Y	638	114.25	89Y
504	108.50	22X	572	109.65	33Y	640	114.35	90Y
506	108.70	24X	574	109.75	34Y	642	114.45	91Y
508	108.90	26X	576	109.85	35Y	644	114.55	92Y
510	109.10	28X	578	109.95	36Y	646	114.65	93Y
512	109.30	30X	580	110.05	37Y	648	114.75	94Y
514	109.50	32X	582	110.15	38Y	650	114.85	95Y
516	109.70	34X	584	110.25	39Y	652	114.95	96Y
518	109.90	36X	586	110.35	40Y	654	115.05	97Y
520	110.10	38X	588	110.45	41Y	656	115.15	98Y
522	110.30	40X	590	110.55	42Y	658	115.25	99Y
524	110.50	42X	592	110.65	43Y	660	115.35	100Y
526	110.70	44X	594	110.75	44Y	662	115.45	101Y
528	110.90	46X	596	110.85	45Y	664	115.55	102Y
530	111.10	48X	598	110.95	46Y	666	115.65	103Y
532	111.30	50X	600	111.05	47Y	668	115.75	104Y
534	111.50	52X	602	111.15	48Y	670	115.85	105Y
536	111.70	54X	604	111.25	49Y	672	115.95	106Y
538	111.90	56X	606	111.35	50Y	674	116.05	107Y
540	108.05	17Y	608	111.45	51Y	676	116.15	108Y
542	108.15	18Y	610	111.55	52Y	678	116.25	109Y
544	108.25	19Y	612	111.65	53Y	680	116.35	110Y
546	108.35	20Y	614	111.75	54Y	682	116.45	111Y
548	108.45	21Y	616	111.85	55Y	684	116.55	112Y
550	108.55	22Y	618	111.95	56Y	686	116.65	113Y
552	108.65	23Y	620	113.35	80Y	688	116.75	114Y
554	108.75	24Y	622	113.45	81Y	690	116.85	115Y
556	108.85	25Y	624	113.55	82Y	692	116.95	116Y
558	108.95	26Y	626	113.65	83Y	694	117.05	117Y
560	109.05	27Y	628	113.75	84Y	696	117.15	118Y
562	109.15	28Y	630	113.85	85Y	698	117.25	119Y
564	109.25	29Y	632	113.95	86Y			
566	109.35	30Y	634	114.05	87Y			

FREQUENCY PAIRING PLAN AND MLS CHANNELING

The following is a list of paired VOR/ILS VHF frequencies with TACAN channels and MLS channels.

TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
2X	134.5	-	19Y	108.25	544	25X	108.80	-
2Y	134.55	-	20X	108.30	502	25Y	108.85	556
11X	135.4	-	20Y	108.35	546	26X	108.90	508
11Y	135.45	-	21X	108.40	-	26Y	108.95	558
12X	135.5	-	21Y	108.45	548	27X	109.00	-
12Y	135.55	-	22X	108.50	504	27Y	109.05	560
17X	108.00	-	22Y	108.55	550	28X	109.10	510
17Y	108.05	540	23X	108.60	-	28Y	109.15	562
18X	108.10	500	23Y	108.65	552	29X	109.20	-
18Y	108.15	542	24X	108.70	506	29Y	109.25	564
19X	108.20	-	24Y	108.75	554	30X	109.30	512

TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
30Y	109.35	566	63X	133.60	-	95Y	114.85	650
31X	109.40	-	63Y	133.65	-	96X	114.90	-
31Y	109.45	568	64X	133.70	-	96Y	114.95	652
32X	109.50	514	64Y	133.75	-	97X	115.00	-
32Y	109.55	570	65X	133.80	-	97Y	115.05	654
33X	109.60	-	65Y	133.85	-	98X	115.10	-
33Y	109.65	572	66X	133.90	-	98Y	115.15	656
34X	109.70	516	66Y	133.95	-	99X	115.20	-
34Y	109.75	574	67X	134.00	-	99Y	115.25	658
35X	109.80	-	67Y	134.05	-	100X	115.30	-
35Y	109.85	576	68X	134.10	-	100Y	115.35	660
36X	109.90	518	68Y	134.15	-	101X	115.40	-
36Y	109.95	578	69X	134.20	-	101Y	115.45	662
37X	110.00	-	69Y	134.25	-	102X	115.50	-
37Y	110.05	580	70X	112.30	-	102Y	115.55	664
38X	110.10	520	70Y	112.35	-	103X	115.60	-
38Y	110.15	582	71X	112.40	-	103Y	115.65	666
39X	110.20	-	71Y	112.45	-	104X	115.70	-
39Y	110.25	584	72X	112.50	-	104Y	115.75	668
40X	110.30	522	72Y	112.55	-	105X	115.80	-
40Y	110.35	586	73X	112.60	-	105Y	115.85	670
41X	110.40	-	73Y	112.65	-	106X	115.90	-
41Y	110.45	588	74X	112.70	-	106Y	115.95	672
42X	110.50	524	74Y	112.75	-	107X	116.00	-
42Y	110.55	590	75X	112.80	-	107Y	116.05	674
43X	110.60	-	75Y	112.85	-	108X	116.10	-
43Y	110.65	592	76X	112.90	-	108Y	116.15	676
44X	110.70	526	76Y	112.95	-	109X	116.20	-
44Y	110.75	594	77X	113.00	-	109Y	116.25	678
45X	110.80	-	77Y	113.05	-	110X	116.30	-
45Y	110.85	596	78X	113.10	-	110Y	116.35	680
46X	110.90	528	78Y	113.15	-	111X	116.40	-
46Y	110.95	598	79X	113.20	-	111Y	116.45	682
47X	111.00	-	79Y	113.25	-	112X	116.50	-
47Y	111.05	600	80X	113.30	-	112Y	116.55	684
48X	111.10	530	80Y	113.35	620	113X	116.60	-
48Y	111.15	602	81X	113.40	-	113Y	116.65	686
49X	111.20	-	81Y	113.45	622	114X	116.70	-
49Y	111.25	604	82X	113.50	-	114Y	116.75	688
50X	111.30	532	82Y	113.55	624	115X	116.80	-
50Y	111.35	606	83X	113.60	-	115Y	116.85	690
51X	111.40	-	83Y	113.65	626	116X	116.90	-
51Y	111.45	608	84X	113.70	-	116Y	116.95	692
52X	111.50	534	84Y	113.75	628	117X	117.00	-
52Y	111.55	610	85X	113.80	-	117Y	117.05	694
53X	111.60	-	85Y	113.85	630	118X	117.10	-
53Y	111.65	612	86X	113.90	-	118Y	117.15	696
54X	111.70	536	86Y	113.95	632	119X	117.20	-
54Y	111.75	614	87X	114.00	-	119Y	117.25	698
55X	111.80	-	87Y	114.05	634	120X	117.30	-
55Y	111.85	616	88X	114.10	-	120Y	117.35	-
56X	111.90	538	88Y	114.15	636	121X	117.40	-
56Y	111.95	618	89X	114.20	-	121Y	117.45	-
57X	112.00	-	89Y	114.25	638	122X	117.50	-
57Y	112.05	-	90X	114.30	-	122Y	117.55	-
58X	112.10	-	90Y	114.35	640	123X	117.60	-
58Y	112.15	-	91X	114.40	-	123Y	117.65	-
59X	112.20	-	91Y	114.45	642	124X	117.70	-
59Y	112.25	-	92X	114.50	-	124Y	117.75	-
60X	133.30	-	92Y	114.55	644	125X	117.80	-
60Y	133.35	-	93X	114.60	-	125Y	117.85	-
61X	133.40	-	93Y	114.65	646	126X	117.90	-
61Y	133.45	-	94X	114.70	-	126Y	117.95	-
62X	133.50	-	94Y	114.75	648			
62Y	133.55	-	95X	114.80	-			

(35) COMM/NAV/WEATHER REMARKS:

These remarks consist of pertinent information affecting the current status of communications, NAVAIDs and weather.

ACTION AIRPARK (See HARDENSTOWN)

AIRPA N39°55.52' W86°14.28' NOTAM FILE EYE.
 NDB (LOM) 209 EY 207° 6.2 NM to Eagle Creek Airpark. Unmonitored.

ST LOUIS

ALEXANDRIA (I99) 3 SE UTC-5(-4DT) N40°13.95' W85°38.25'

CHICAGO

900 NOTAM FILE HUF

L-27E

RWY 09-27: H2591X60 (ASPH) 0.3% up W.

IAP

RWY 09: Thld dsplcd 195'. Crops.

RWY 27: Thld dsplcd 277'. Crops.

AIRPORT REMARKS: Attended irregularly. Heavy glider activity on and invof arpt. Rwy 09-27 grass growing through numerous cracks.

COMMUNICATIONS: CTAF 122.8 UNICOM 123.05

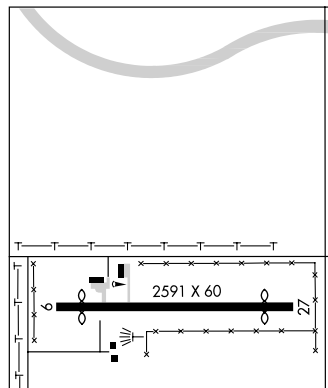
MUNCIE RCO 122.1R 114.4T (TERRE HAUTE RADIO)

® **INDIANAPOLIS CENTER APP/DEP CON 120.65**

RADIO AIDS TO NAVIGATION: NOTAM FILE MIE.

MUNCIE (L) VOR/DME 114.4 MIE Chan 91 N40°14.24'

W85°23.64' 272° 11.2 NM to fld. 935/3W.



ANDERSON MUNI-DARLINGTON FLD (AID) 3 E UTC-5(-4DT) N40°06.52' W85°36.78'

CHICAGO

919 B S4 FUEL 100LL, JET A OX 4 NOTAM FILE AID

H-5E, 10F, L-27E

RWY 12-30: H5400X100 (ASPH-GRVD) S-45, D-55, DT-85 MIRL 0.7% up SE.

IAP

RWY 12: REIL. VASI (V4L)—GA 3.0° TCH 46'. Trees.

RWY 30: MALSF. VASI(V4L)—GA 3.0° TCH 47'. Thld dsplcd 88'. Road.

RWY 18-36: H3400X75 (ASPH-GRVD) S-10 MIRL

RWY 18: PAPI(P2L)—GA 3.0° TCH 27'. Thld dsplcd 301'. Tree.

RWY 36: Thld dsplcd 298'. Road.

AIRPORT REMARKS: Attended 1200-0200Z†. Acft departing Rwy 12, Rwy 18, Rwy 36, unable to see each other. Deer on and invof arpt. Rwy 18-36 not avbl to air carrier acft over 30 passenger seats. When twr clsd MIRL Rwy 18-36 and Rwy 12-30 opr med ints, to increase ints and ACTIVATE MALSF Rwy 30, REIL Rwy 12, VASI Rwy 12-126.0. VASI Rwy 30 and PAPI Rwy 18 on continuously.

WEATHER DATA SOURCES: AWOS-3 118.375 (765) 378-1510.

COMMUNICATIONS: CTAF 126.0 UNICOM 122.95

MUNCIE RCO 122.1R, 114.4T (TERRE HAUTE RADIO)

® **INDIANAPOLIS CENTER APP/DEP CON 120.65**

TOWER 126.0 (1200-0200Z†) GND CON 121.6

AIRSPACE: CLASS D svc 1200-0200Z† other times CLASS G.

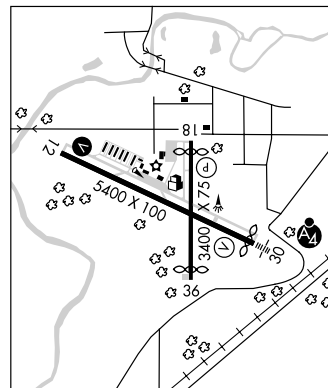
RADIO AIDS TO NAVIGATION: NOTAM FILE MIE.

MUNCIE (L) VOR/DME 114.4 MIE Chan 91 N40°14.24' W85°23.64' 236° 12.7 NM to fld. 935/3W.

VIDEO NDB (MHW/LOM) 371 AI N40°04.17' W85°30.64' 299° 5.3 NM to fld. NOTAM FILE AID.

Unmonitored when twr clsd.

ILS 110.1 I-AID Rwy 30. Class 1A. LOM VIDEO NDB. LOC/LOM unmonitored when twr clsd.



ANGOLA N41°38.39' W85°05.22' NOTAM FILE HUF.

CHICAGO

NDB (MHW) 347 ANQ at Tri-State Steuben Co.

L-28J

ANGOLA

TRI—STATE STEUBEN CO (ANQ) 3 W UTC-5(-4DT) N41°38.38' W85°05.01'

CHICAGO

995 B S4 FUEL 100LL, JET A NOTAM FILE HUF

L-28J

RWY 05-23: H4540X75 (ASPH) S-4 MIRL

IAP

RWY 05: REIL. Thld displcd 540'. Bldg. RWY 23: REIL. Trees.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 05: TORA-4540 TODA-4540 ASDA-4540 LDA-4000

RWY 23: TORA-4000 TODA-4000 ASDA-4000 LDA-4000

AIRPORT REMARKS: Attended 1300-2200Z. Arpt unattended Thanksgiving, Christmas and New Years Day. Parachute Jumping. Birds on and in/ovf arpt. Be alert for deer SS-SR. MIRL Rwy 05-23 preset low ints dusk-0500Z; to increase ints and ACTIVATE REIL Rws 05 and Rwy 23—CTAF. After 0500Z ACTIVATE—CTAF.

WEATHER DATA SOURCES: AWOS-3 118.175 (260) 668-5630.

COMMUNICATIONS: CTAF/UNICOM 123.075

LITCHFIELD RCO 122.1R 111.2T (LANSING RADIO)

® FORT WAYNE APP/DEP CON 132.15 (SE/NE of active rwy) 127.2

(SW/NW of active rwy)

RADIO AIDS TO NAVIGATION: NOTAM FILE LAN.

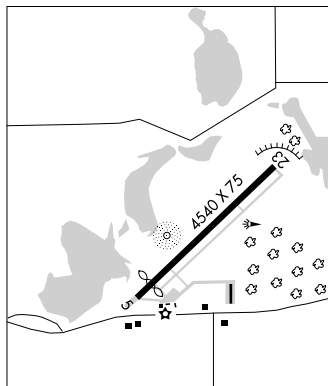
LITCHFIELD (L) VOR/DME 111.2 LFD Chan 49 N42°03.75'

W84°45.91' 214° 29.1 NM to fld. 1040/5W.

ANGOLA NDB (MHW) 347 ANQ N41°38.39' W85°05.22' at fld.

NOTAM FILE HUF.

COMM/NAV/WEATHER REMARKS: APP CON sectorization based upon Fort Wayne rwy usage.



ARENS FLD (See WINAMAC)

AUBON N41°18.50' W84°56.66' NOTAM FILE FWA.

CHICAGO

NDB (LOM) 227 GW 254° 5.4 NM to DeKalb Co.

AUBURN

DE KALB CO (GWB) 3 S UTC-5(-4DT) N41°18.43' W85°03.86'

CHICAGO

880 B S2 FUEL 100LL, JET A OX 1 NOTAM FILE HUF

H-5E, 10F, L-28J

RWY 09-27: H5000X100 (ASPH-GRVD) MIRL

IAP

RWY 09: REIL. VASI(V2L)—GA 3.0° TCH 42'.

RWY 27: MALSR. REIL. VASI(V2L)—GA 3.0° TCH 41'. P-line.

AIRPORT REMARKS: Attended Mon-Fri 1200-0300Z, Sat-Sun 1400-2200Z. For arpt attendant after hrs phone 260-927-1845. MIRL Rwy 09-27 preset low ints dusk-dawn, to increase ints and ACTIVATE VASI Rwy 09 and Rwy 27 and MALSR Rwy 27—CTAF.

WEATHER DATA SOURCES: AWOS-3 124.15 (260) 925-8225.

COMMUNICATIONS: CTAF/UNICOM 123.0

® FORT WAYNE APP/DEP CON 132.15 (SE/NE of active rwy) 127.2

(SW/NW of active rwy) CLNC DEL 126.6

RADIO AIDS TO NAVIGATION: NOTAM FILE FWA.

FORT WAYNE (H) VORTACW 117.8 FWA Chan 125 N40°58.74'

W85°11.28' 016° 20.5 NM to fld. 793/0E.

WOLF LAKE (L) VORW 110.4 OLK N41°14.82' W85°29.84'

082° 19.9 NM to fld. NOTAM FILE HUF.

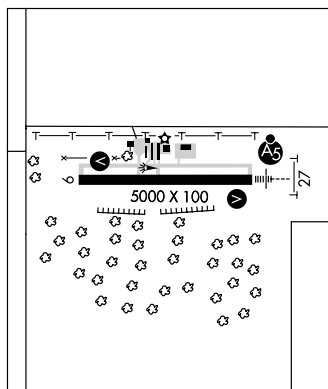
AUBON NDB (LOM) 227 GW N41°18.50' W84°56.65'

274° 5.4 NM to fld.

ILS/DME 108.75 I-GWB Chan 24(Y) Rwy 27. LOM

AUBON NDB.

COMM/NAV/WEATHER REMARKS: APP CON sectorization based upon Fort Wayne rwy usage.



BALL N40°10.85' W85°19.26' NOTAM FILE MIE.

ST. LOUIS

NDB (LOM) 365 JN 320° 5.0 NM to Delaware Co-Johnson Fld.

BEDFORD N38°50.38' W86°26.18' NOTAM FILE HUF.

ST. LOUIS

NDB (MHW) 344 BFR at Virgil I. Grissom Muni.

L-27D

BEDFORD**VIRGIL I GRISSOM MUNI** (BFR) 3 SE UTC-5(-4DT) N38°50.40' W86°26.72'

ST. LOUIS

727 B S4 FUEL 100LL, JET A TPA-1528(799) NOTAM FILE HUF

L-27D

RWY 13-31: H4501X100 (ASPH) S-25, D-30 MIRL

IAP

RWY 13: REIL. Trees.

RWY 31: REIL. VASI(V2L)—GA 3.0° TCH 31'. Tree.

RWY 06-24: H3089X70 (ASPH) S-4 0.3% up NE

RWY 06: Thld dsplcd 155'. Road. RWY 24: Trees.

AIRPORT REMARKS: Attended 1300-0000Z†. Arpt CLOSED Christmas Day.

CAUTION: Line of sight restrictions to visibility. Deer on and invof arpt. MIRL Rwy 13-31 preset low ints; to increase ints and ACTIVATE REIL Rwy 13-31—122.8.

WEATHER DATA SOURCES: AWOS-3 119.125 (812) 275-8306.**COMMUNICATIONS:** CTAF/UNICOM 122.8

HOOSIER RCO 122.1R 110.2T (TERRE HAUTE RADIO)

® INDIANAPOLIS CENTER APP/DEP CON 124.775

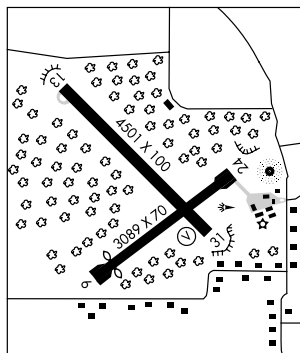
RADIO AIDS TO NAVIGATION: NOTAM FILE BMG.

HOOSIER (L) VORTAC 110.2 OOM Chan 39 N39°08.63'

W86°36.78' 159° 19.8 NM to fld. 845/2W.

BEDFORD NDB (MHW) 344 BFR N38°50.38' W86°26.18' at fld.

NOTAM FILE HUF.

**BLOOMFIELD****SHAWNEE FLD** (1I3) 3 W UTC-5(-4DT) N39°02.67' W87°00.33'

ST. LOUIS

501 S2 NOTAM FILE HUF

RWY 18-36: 2160X150 (TURF) EDGE LGTS (NSTD)

RWY 36: Building.

AIRPORT REMARKS: Attended on call. For arpt attendant call 812-384-3903. Birds on and invof rwy. Ultralights on and invof arpt. Rwy 18-36 has a minus 4' slope on E side; N of Rwy 18 thld. Powerplant repairs part-time. Rwy 18-36 NSTD rwy lgts, pvc pipe with glass jars. ACTIVATE NSTD edge lgts Rwy 18-36—CTAF.**COMMUNICATIONS:** CTAF 122.9**BLOOMINGTON****LAKE MONROE SPB** (Ø7I) 7 SE UTC-5(-4DT) N39°03.52' W86°26.77'

ST LOUIS

538 NOTAM FILE HUF

WATERWAY SW-NE: 15000X4000 (WATER)**SEAPLANE REMARKS:** Unattended. Low altitude hi-speed military training activity over or near reservoir - ctc HUF FSS for information. Seaplane ops prohibited between SS to SR. Lake use permit required. Call 812-837-9546.**COMMUNICATIONS:** CTAF 122.9

MONROE CO (BMG) 4 SW UTC-5(-4DT) N39°08.76' W86°37.00'

ST LOUIS

846 B S4 FUEL 100LL, JET A ARFF Index—See Remarks NOTAM FILE BMG

H-5E, 10F, L-27D

RWY 17-35: H6500X150 (ASPH-GRVD) S-68, D-121, ST-160, DT-169 HIRL

IAP, AD

RWY 17: REIL. VASI(V4L)—GA 3.0° TCH 40'. Tree.

RWY 35: MALSR.

RWY 06-24: H3798X100 (ASPH-GRVD) S-35, D-50 MIRL

RWY 06: REIL. VASI (V4L) —GA 4.0° TCH 37'. Thld dsplcd 304'. Road.

RWY 24: REIL. VASI (V4L) —GA 4.0° TCH 49'. Thld dsplcd 222'. Road/Fence.

LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 17	06-24	6100

AIRPORT REMARKS: Attended 1130-0230Z+. Rwy 06-24 not avbl for air carrier ops with more than 30 passenger seats. Rwy 17-35 brush and small trees penetrate primary surface W of centerline. PPR for air carrier ops with more than 30 passenger seats; call arpt manager 812-825-5406 or 812-825-9600 on weekends, holidays and ngts. Class IV ARFF Index A. Index B ARFF capability avbl on req. Rwy 06 REIL OTS indef. Rwy 17 REIL OTS indef. When twr clsd ACTIVATE HIRL Rwy 17-35, MALSR Rwy 35 and MIRL Rwy 06-24—CTAF.

WEATHER DATA SOURCES: ASOS 110.2 OOM (812) 825-8046. LAWRs.

COMMUNICATIONS: CTAF 120.775 UNICOM 122.95

HOOSIER RCO 122.1R, 110.2T (TERRE HAUTE RADIO)

Ⓡ HULMAN APP/DEP CON 128.025 (1100-0300Z+)

Ⓡ INDIANAPOLIS CENTER APP/DEP CON 132.2 (0300-1100Z+)

BLOOMINGTON TOWER 120.775 (1130-0230Z+) GND CON 121.9

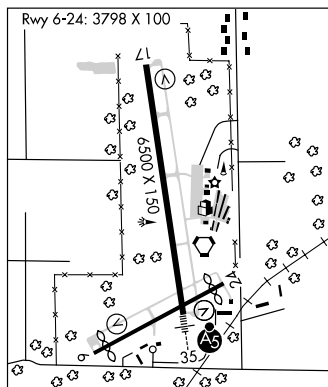
AIRSPACE: CLASS D svc 1130-0230Z+ other times CLASS G.

RADIO AIDS TO NAVIGATION: NOTAM FILE BMG.

HOOSIER (L) VORTAC 110.2 OOM Chan 39 N39°08.63' W86°36.78' at fld. 845/2W. ASOS.

CLAYE NDB (MHW/LOM) 382 BM N39°03.39' W86°35.96' 353° 5.4 NM to fld.

ILS 108.3 I-BMG Rwy 35 Class IE. LOM CLAYE NDB. Unmonitored.



BLUFFTON

MILLER (C4Ø) 3 SW UTC-5(-4DT) N40°43.00' W85°15.00'

CHICAGO

845 B S4 FUEL 100LL NOTAM FILE HUF

RWY 09-27: 2600X100 (TURF)

RWY 09: Thld dsplcd 200'. Crops. RWY 27: Thld dsplcd 300'. Road.

RWY 18-36: 2230X100 (TURF)

RWY 18: Thld dsplcd 202'. Crops. RWY 36: Thld dsplcd 261'. Building.

AIRPORT REMARKS: Attended irregularly. Attended evenings and weekends only. Hangar W of Rwy 36 centerline.

Rotating bcn ops dusk-0500Z+. Rwy 18-36 dsplcd thlds marked with white cones. Rwy 09-27 dsplcd thlds marked with white cones.

COMMUNICATIONS: CTAF 122.9

BOILER N40°33.37' W87°04.16' NOTAM FILE HUF.

CHICAGO

(H) VORTACW 115.1 BVT Chan 98 144° 10.5 NM to Purdue University. 750/1E. HIWAS.

H-5E, 10F, L-27D

BOONE CO (See LEBANON)

BOONVILLE (I91) 2 W UTC-6(-5DT) N38°02.55' W87°19.07'

ST LOUIS

380 NOTAM FILE HUF

RWY 09-27: 2300X100 (TURF)

RWY 09: Thld dsplcd 300'. Road. RWY 27: Thld dsplcd 300'. Trees.

AIRPORT REMARKS: Attended irregularly. Poor access from turf rwy to gravel apron due to rising terrain. Rwy 09-27 dsplcd thlds marked with L shaped white conc.

COMMUNICATIONS: CTAF 122.9

BOYER FLIGHT PARK ULTRALIGHT (See BURNETTSVILLE)

BRAZIL CLAY CO (Ø12) 3 S UTC-5(-4DT) N39°28.60' W87°05.98'

ST. LOUIS

645 B S4 FUEL 100LL NOTAM FILE HUF Not insp.

L-27D

RWY 09-27: H2941X40 (ASPH) S-8 LIRL 0.5% up W

IAP

RWY 09: Thld dsplcd 620'. Trees.

RWY 27: Thld dsplcd 442'. Trees.

AIRPORT REMARKS: Attended Mon-Sat 1500-2200Z, Sun 1800-2200Z. For attendant after hrs call 812-443-5527. For fuel call 812-443-0018. Large flocks of geese on and invof arpt. +80' WSW-ENE p-line ¼ mile north of arpt.

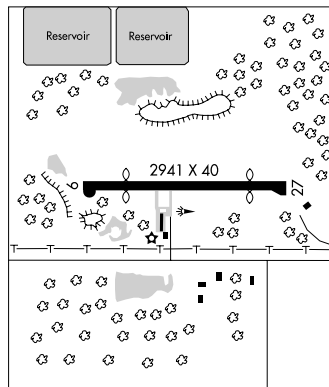
COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ HULMAN APP/DEP CON 125.45 118.3 (1100-0300Z)

Ⓡ INDIANAPOLIS CENTER APP/DEP CON 132.2 (0300-1100Z)

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

TERRE HAUTE (H) VORTACW 115.3 TTH Chan 100 N39°29.34' W87°14.94' 094° 7.0 NM to fld. 606/2E. **HIWAS.**

**BRICKYARD** N39°48.88' W86°22.05'. NOTAM FILE HUF.

ST LOUIS

(H) VORTACW 116.3 VHP Chan 110 149° 6.7 NM to Indianapolis Intl. 823/IE.

H-5E, 10F, L-27D

BRINN N39°37.04' W86°24.47'. NOTAM FILE IND.

ST LOUIS

NDB (LOM) 219 OQ 043° 8.0 NM to Indianapolis Intl.

BROOKVILLE RESERVOIR SPB (12I) 6 N UTC-5(-4DT) N39°30.62' W85°00.00'

ST LOUIS

748 NOTAM FILE HUF

WATERWAY N-S: 25000X2000 (WATER)

WATERWAY S: Bridge.

WATERWAY 18-36: 16000X2000 (WATER)

WATERWAY 36: Bridge.

SEAPLANE REMARKS: Unattended. Seaplane ops prohibited between SS and SR. Two N-S waterways, one 25,000 ft S of bridge and one 16,000 ft N of bridge at mid-point of lake. Lake use permit required. Call 765-647-2657.

COMMUNICATIONS: CTAF 122.9**BURNETTSTVILLE****BOYER FLIGHT PARK ULTRALIGHT** (7W7) 4 SW UTC-5(-4DT) N40°43.20' W86°36.97'

CHICAGO

710 S8 NOTAM FILE HUF

RWY 18-36: 1770X120 (TURF)

RWY 18: Thld dsplcd 300'. Road. RWY 36: Thld dsplcd 200'. Crops.

AIRPORT REMARKS: Unattended. Birds and deer on and invof arpt. No snow removal. Rwy 18-36 dsplcd thlds marked with 3 traffic cones each side of centerline.

COMMUNICATIONS: CTAF 122.9**BUTLER****HARROLD** (B25) 3 NW UTC-5(-4DT) N41°28.57' W84°54.37'

DETROIT

925 S4 NOTAM FILE HUF

RWY 18-36: 2920X46 (GRVL)

RWY 18: Thld dsplcd 200'. Crops. RWY 36: Thld dsplcd 400'. Road.

AIRPORT REMARKS: Attended Mon-Sat 1300Z-dusk. Deer and birds on and invof rwy. Rwy 18-36 dsplcd thlds marked by 3 rwy lgts with yellow collars each side of centerline.

COMMUNICATIONS: CTAF 122.9**CAPTAIN** N38°52.05' W85°58.38' NOTAM FILE HUF.

ST. LOUIS

NDB (MHW) 308 EQZ 043° 4.6 NM to Freeman Muni. NDB unmonitored.

L-27D

CATCH N38°28.44' W85°44.23' NOTAM FILE HUF.

ST. LOUIS

NDB (LOM) 331 JV 182° 6.5 NM to Clark Rgnl.

CLARK RGNL (See JEFFERSONVILLE)

CLARKSVILLE**HOLIDAY INN LAKEVIEW HELIPORT** (1I6) 8 S UTC-5(-4DT) N38°17.01' W85°45.35'

ST LOUIS

445 NOTAM FILE HUF

HELIPAD H1: H50X50 (ASPH) **HELIPAD LGTS** (NSTD)**HELIPORT REMARKS:** Attended continuously. Helipad H1 ingress 060°-140°; egress 320°-030° from pad. Student and/or practice tkfs/lgds strictly prohibited. +30' sign lgtd 40' northeast of pad perimeter. Helipad H1 25' lightpole 145° clockwise from pad 122' from center of helipad. 111' lightpole 276' NNE. 30' power lines running NW-SE 150' N of pad. Helipad H1 NSTD perimeter lgts. All lenses are orange.**COMMUNICATIONS:** CTAF 122.9**CLAYE** N39°03.39' W86°35.96' NOTAM FILE BMG.

ST. LOUIS

NDB (MHW/LOM) 382 BM 353° 5.4 NM to Monroe Co.

L-27D

Unusable 055°-075°

210°-330° byd 10 NM

CLIFS N39°19.32' W85°49.11' NOTAM FILE BAK.

ST. LOUIS

NDB (MHW/LOM) 410 BA 228° 5.1 NM to Columbus Muni.

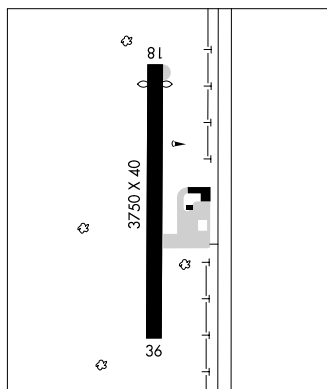
L-27D

CLINTON (1I7) 3 N UTC-5(-4DT) N39°42.75' W87°24.08'

ST LOUIS

526 NOTAM FILE HUF

L-27D

RWY 18-36: H3750X40 (ASPH)**RWY 18:** Thld dsplcd 145'. Crops. **RWY 36:** Crops.**AIRPORT REMARKS:** Attended Mon-Fri 1700-0100Z+. Rwy 18-36 low grass growing through cracks.**COMMUNICATIONS:** CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE HUF.**TERRE HAUTE (H) VORTACW** 115.3 TTH Chan 100 N39°29.34' W87°14.94' 330° 15.2 NM to fld. 606/2E. **HIWAS.****COLFA** N39°39.42' W86°11.13' NOTAM FILE IND.

ST LOUIS

NDB (LOM) 232 CO 308° 6.2 NM to Indianapolis Intl.

CONVERSE (118) 1 W UTC-5(-4DT) N40°34.25' W85°53.50'

CHICAGO

840 NOTAM FILE HUF

RWY 07-25: H1800X75 (ASPH-CONC)

RWY 07: Thld dsplcd 38'.

RWY 25: Thld dsplcd 38'. Crops.

AIRPORT REMARKS: Unattended. Rwy 07-25 75' wide concrete overlaid with 37' wide asph strip down middle of rwy.

Loose gravel on rwy. Radio controlled airplanes on and invof arpt.

COMMUNICATIONS: CTAF 122.9

CRAWFORDSVILLE MUNI (CFJ) 4 S UTC-5(-4DT) N39°58.54' W86°55.19'

ST. LOUIS

799 B S4 FUEL 100LL, JET A NOTAM FILE HUF

L-27D

RWY 04-22: H4500X75 (ASPH) S-16, D-25 MIRL

IAP

RWY 04: REIL. PAPI(P2L)—GA 3.0° TCH 24'. Crops.

RWY 22: REIL. PAPI(P2L)—GA 3.0° TCH 24'. Thld dsplcd 200'. Tree.

AIRPORT REMARKS: Attended Nov-Mar 1300-2200Z†, Apr-Oct

1300-0000Z†. Parachute Jumping. MIRL Rwy 04-22 preset on low ints; to increase ints and ACTIVATE PAPI and REIL Rwys 04 and 22—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

® INDIANAPOLIS APP/DEP CON 119.05

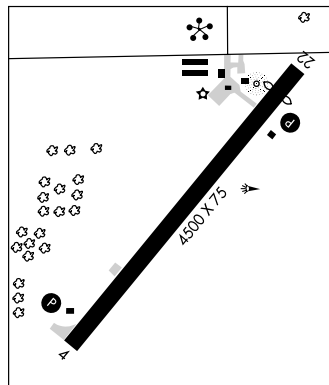
RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

BRICKYARD (H) VORTACW 116.3 VHP Chan 110 N39°48.88'

W86°22.05' 290° 27.3 NM to fld. 823/1E.

NDB (MHW) 388 CFJ N39°58.86' W86°54.94' at fld. NDB

unmonitored 0000-1200Z†.



CROWNPOINT N41°24.25' W87°14.27'

CHICAGO

RC0 123.65 (TERRE HAUTE RADIO)

L-28I

DAVISS CO (See WASHINGTON)

DE KALB CO (See AUBURN)

DELAWARE CO—JOHNSON FLD (See MUNCIE)

DELPHI MUNI (119) 3 S UTC-5(-4DT) N40°32.57' W86°40.90'

CHICAGO

675 B S2 FUEL: 100LL, MOGAS NOTAM FILE HUF

RWY 18-36: H2891X60 (ASPH) MIRL

RWY 18: Thld dsplcd 260'.

RWY 36: Crops.

AIRPORT REMARKS: Attended irregularly. Arpt unattended Christmas. ACTIVATE MIRL Rwy 18-36—CTAF.

COMMUNICATIONS: CTAF 122.9

EAGLE CREEK AIRPARK (See INDIANAPOLIS)

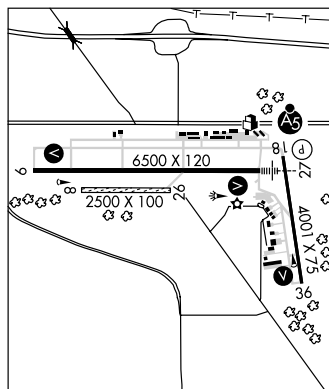
EARLE N40°25.59' W87°03.11' NOTAM FILE LAF.

CHICAGO

NDB (LOM) 401 LA 100° 5.3 NM to Purdue University. LOM unmonitored.

ELKHART**ELKHART MUNI** (EKM) 3 NW UTC-5(-4DT) N41°43.16' W86°00.19'**CHICAGO**778 B S4 FUEL 100LL, JET A OX 4 TPA-1778(1000) Class IV, ARFF Index A
NOTAM FILE EKMH-5E, 10F, L-281
IAP, AD**RWY 09-27:** H6500X120 (ASPH-GRVD) S-40, D-60 HIRL**RWY 09:** REIL. VASI(V4L)—GA 3.0° TCH 49'. Trees.**RWY 27:** MALSR VASI(V4L)—GA 3.0° TCH 45'. Trees**RWY 18-36:** H4001X75 (ASPH-GRVD) S-45, D-65, ST-82 MIRL**RWY 18:** REIL. PAPI(P4L)—GA 3.0° TCH 37'. Bldg.**RWY 36:** REIL. VASI(V4L)—GA 3.5° TCH 46'. Trees.**RWY 08-26:** 2500X100 (TURF)**RUNWAY DECLARED DISTANCE INFORMATION****RWY 08:** TORA-2500 TODA-2500 ASDA-2500 LDA-2500**RWY 09:** TORA-6500 TODA-6500 ASDA-6500 LDA-6500**RWY 18:** TORA-4001 TODA-4001 ASDA-4001 LDA-4001**RWY 26:** TORA-2500 TODA-2500 ASDA-2500 LDA-2500**RWY 27:** TORA-6500 TODA-6500 ASDA-6500 LDA-6500**RWY 36:** TORA-4001 TODA-4001 ASDA-4001 LDA-4001**AIRPORT REMARKS:** Attended 1100-0300Z. CLOSED to scheduled air carrier ops with greater than 9 passenger seats and unscheduled air carrier ops greater than 30 passenger seats. 90-day PPR, call arpt manager 574-264-5217, after hrs ctc city communications center 574-293-2175. Uncontrolled vehicles on acft aprons N side of arpt. Rwy 08-26 marked with white corner markers. VFR only and only opr during twr hrs. When twr clsd MIRL Rwy 18-36; HIRL Rwy 09-27 preset low ints; to increase ints and ACTIVATE VASI Rwy 09, Rwy 27 and Rwy 36; REIL Rwy 09, Rwy 18 and Rwy 36 and MALSR Rwy 27—CTAF. Twy A not avbl to acft with more than 30 passenger seats. Rwy 27 touchdown runway visual range avbl.**WEATHER DATA SOURCES:** AWOS-3 124.475 (574) 264-9002.**COMMUNICATIONS:** CTAF 119.5 UNICOM 122.95**GOSHEN RCO 122.1R 113.7T (TERRE HAUTE RADIO)****(R) SOUTH BEND APP/DEP CON 118.55** (Sun-Fri 1030-0500Z, Sat 1030-0445Z), other times ctc **(R) CHICAGO CENTER APP/DEP CON 127.55****TOWER 119.5** (Mon-Fri 1100-0300Z, Sat 1100-0100Z, Sun 1200-0300Z) **GND CON 121.8****CLNC DEL 121.8 SOUTH BEND CLNC DEL 119.7** (When Elkhart twr clsd).**AIRSPACE:** CLASS D svc Mon-Fri 1100-0300Z, Sat 1100-0100Z, Sun 1200-0300Z other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE LAN.**GIPPER (H) VORTACW 115.4** GIJ Chan 101 N41°46.12' W86°19.11' 102° 14.5 NM to fld. 804/00E. HIWAS.**GOSHEN (H) VORTAC 113.7** GSH Chan 84 N41°31.51' W86°01.68' 005° 11.7 NM to fld. 850/00E.

NOTAM FILE GSH.

ILS 111.5 I-OUP Rwy 27. Class IB.**MISHAWAKA PILOTS CLUB** (3C1) 3 SW UTC-5(-4DT) N41°39.42' W86°02.08'**CHICAGO**

755 B NOTAM FILE HUF

RWY 12-30: 3140X100 (TURF)**RWY 12:** Thld dspcd 690'. Trees.**RWY 30:** Thld dspcd 520'. Trees.**RWY 03-21:** H2243X40 (ASPH) LIRL**RWY 03:** Thld dspcd 187'. Road.**RWY 21:** Thld dspcd 200'. Road.**AIRPORT REMARKS:** Attended irregularly. Rwy 12-30 dspcd thlds marked with white tires.**COMMUNICATIONS:** CTAF 122.9**EMINENCE****PAM'S PLACE** (78I) 3 SW UTC-5(-4DT) N39°30.05' W86°41.41'**ST. LOUIS**

795 S4 NOTAM FILE HUF

RWY 10-28: 3630X100 (TURF)**RWY 10:** Thld dspcd 745'. Trees.**RWY 28:** Thld dspcd 750'. Road. Rgt tfc.**AIRPORT REMARKS:** Attended Mon-Fri 1400-2200Z. Deer and birds on and invof arpt. Rwy 10-28 edges marked with grassline; dspcd thlds marked with 3 traffic cones.**COMMUNICATIONS:** CTAF 122.9

EVANSVILLE**EVANSVILLE RGNL** (EVV) 3 N UTC-6(-5DT) N38°02.31' W87°31.85'

ST. LOUIS

418 B S4 FUEL 100LL, JET A, OX 1, 2, 3 ARFF Index—See Remarks NOTAM FILE EVV

H-5E, L-16I

RWY 04-22: H8020X150 (ASPH-GRVD) S-100, D-175, ST-175, DT-300 HIRL

IAP, AD

RWY 04: REIL. VASI(V4L)—GA 3.0° TCH 52'. Thld dspcd 1296'.

Building.

RWY 22: MALSR. 0.8% down.**RWY 18-36:** H6286X150 (ASPH-GRVD) S-100, D-175, ST-175, DT-300 MIRL**RWY 18:** REIL. PAPI(P4R)—GA 3.66 TCH 62'. Pole.**RWY 36:** REIL. PAPI(P4L)—GA 3.0 TCH 29'. Thld dspcd 789'. Road.**RWY 09-27:** H3497X75 (ASPH) S-30, D-40, DT-60 MIRL**RWY 09:** Thld dspcd 529'. Road.**RWY 27:** Thld dspcd 218'. Road.**RUNWAY DECLARED DISTANCE INFORMATION****RWY 18:** TORA-5505 TODA-5505 ASDA-5505 LDA-5505**RWY 36:** TORA-6286 TODA-6286 ASDA-6286 LDA-5505**AIRPORT REMARKS:** Attended continuously. Birds on and invof arpt.

Rwys 09-27, 18-36 and Twys C; H; and E, restricted to acft less

than 50,000 lbs. Rwy 04 and Rwy 36 apch ends are closely

aligned. Verify correct rwy and compass heading prior to

departure. Class I, ARFF Index B. Arpt has Index C ARFF

capability—avbl on req, call 812-421-4408. HIRL Rwy 04-22 and

Rwy 18-36 on when twr clsd; Ints level and lgts Rwy 09-27 predicated by weather forecast when twr clsd.

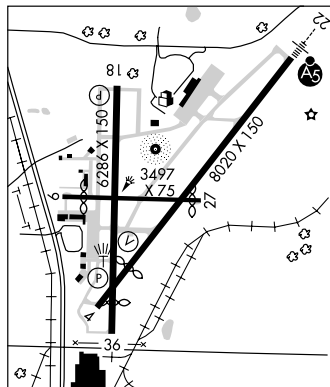
ACTIVATE MALSR Rwy 22—CTAF.

WEATHER DATA SOURCES: ASOS (812) 426-2174. LAWRS.**COMMUNICATIONS:** CTAF 118.7 ATIS 120.2 UNICOM 122.95

RCO 122.65 (TERRE HAUTE RADIO)

⑧ **APP/DEP CON** 126.4 (041-219°) 127.35 (220-040°) (1200-0500Z‡)⑧ **INDIANAPOLIS CENTER APP/DEP CON** 128.3 (0500-1200Z‡)**TOWER** 118.7 (1200-0500Z‡) **GND CON** 121.9 **CLNC DEL** 126.6**AIRSPACE:** CLASS C svc 1200-0500Z‡ ctc **APP CON** other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE HUF.**POCKET CITY (H) VORTACW** 113.3 PXV Chan 80 N37°55.70' W87°45.74' 056° 12.8 NM to fld. 384/3E.

HIWAS.

NDB (MHW) 284 PDW N38°02.41' W87°31.86' at fld. VFR only. NOTAM FILE EVV. Unmonitored when twr clsd. OTS indef.**VICCI NDB (LOM)** 219 EV N38°07.60' W87°26.44' 219° 6.8 NM to fld.**ILS** 109.9 I-DSO Rwy 04. Class IB. Unmonitored when twr clsd.**ILS** 109.9 I-EVV Rwy 22 Class IE. LOM VICCI NDB. Unmonitored when twr clsd.**ASR** (1200-0500Z‡)**SKYLANE** (3EV) 1 NW UTC-6(-5DT) N38°01.70' W87°35.68'

ST. LOUIS

380 S2 FUEL 100LL NOTAM FILE HUF

RWY 18-36: 2105X142 (TURF)**RWY 18:** Pole. **RWY 36:** P-line.**AIRPORT REMARKS:** Attended irregularly. Coordinate ingress/egress with Evansville App/Dep Con. Rwy 18-36 thlds marked with L shaped mats painted white.**COMMUNICATIONS:** CTAF 122.9**FERDINAND** N38°14.91' W86°50.27' NOTAM FILE HNB.

ST. LOUIS

NDB (MHW) 239 FNZ 270° 5.5 NM to Huntingburg.

L-27D

FLORA MUNI (5I2) 2 SW UTC-5(-4DT) N40°32.39' W86°32.90'

CHICAGO

710 NOTAM FILE HUF

RWY 09-27: 2143X93 (TURF) LIRL**RWY 09:** Road. **RWY 27:** Crops.**AIRPORT REMARKS:** Unattended. Parachute Jumping.**COMMUNICATIONS:** CTAF 122.9**FLYING U RANCH** (See UNION MILLS)

FORT WAYNE**FORT WAYNE INTL** (FWA) 7 SW UTC-5(-4DT) N40°58.71' W85°11.71'

814 B S4 FUEL 100LL, JET A OX 3 LRA ARFF Index—See Remarks

NOTAM FILE FWA

CHICAGO

H-5E, 10F, L-27E

IAP, AD

RWY 05-23: H11981X150 (ASPH-CONC-GRVD) S-100, D-190, ST-175, DT-355, DDT-780 HIRL CL**RWY 05:** ALSF2. TDZL.**RWY 23:** REIL. PAPI (P4L)—GA 3.0° TCH 76'. Tree. 0.3% up.**RWY 14-32:** H8001X150 (ASPH-CONC-GRVD) S-100, D-190, ST-175, DT-215, DDT-430 HIRL**RWY 14:** REIL. PAPI (P4L)—GA 3.0° TCH 53'. Tree.**RWY 32:** MALSR. PAPI (P4L)—GA 3.0° TCH 74'. Railroad.**RWY 09-27:** H4001X75 (ASPH-CONC) S-100, D-190, ST-175, DT-215, DDT-430**LAND AND HOLD SHORT OPERATIONS**

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 05	14-32	9150
RWY 14	05-23	5650
RWY 27	05-23	2700

RUNWAY DECLARED DISTANCE INFORMATION

RWY 05:	TORA-11981	TODA-11981	ASDA-11981	LDA-11981
RWY 09:	TORA-4001	TODA-4001	ASDA-4001	LDA-4001
RWY 14:	TORA-8001	TODA-8001	ASDA-8001	LDA-8001
RWY 23:	TORA-11981	TODA-11981	ASDA-11981	LDA-11981
RWY 27:	TORA-4001	TODA-4001	ASDA-4001	LDA-4001
RWY 32:	TORA-8001	TODA-8001	ASDA-8001	LDA-8001

ARRESTING GEAR/SYSTEM**RWY 05** BAK-14 BAK 12B(B) (1563')TYPE H BAK 12B(B) (1380') **RWY 23****AIRPORT REMARKS:** Attended continuously Mon-Fri; Sat-Sun

1000-0500Z. User fee. Callout fee for fuel imposed between

0500-1000Z. Birds on and in/ovf arpt. Rwy 05-23 grooved

11,981'X130'. Rwy 14-32 grooved 8000' by 130'. Rwy 09-27

CLOSED for takeoffs and ldgs at ngt; avbl for taxiing only. US Customs user fee arpt. Noise abatement

procedures in effect ctc arpt manager 260-747-4146. Class I, ARFF Index B. ARFF Index C avbl upon req call arpt manager 260-747-4146. Twy M and East ramp CLOSED to all acft except military acft. All other acft

wishing to use E ramp must have prior approval from arpt manager. Twys B/B-1/B-2/E and G2 CLOSED to acft with wing spans of 79' and over and acft with dual wheel type ldg gear in excess of 50,000 lbs. Twys B, B1, and B2 avbl to Group IV acft 0400-0900Z. Rwy 05 arm/dearm area restricted to military acft. Rwy 05

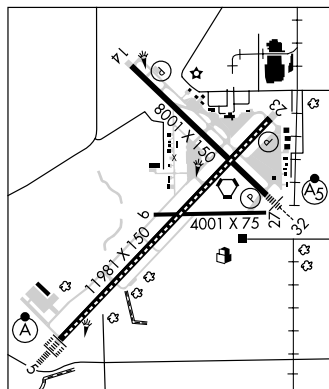
touchdown, midpoint and rollout runway visual range avbl. Rwy 23 touchdown, midfield and rollout runway visual range avbl.

WEATHER DATA SOURCES: ASOS (260) 478-5615.**COMMUNICATIONS:** ATIS 121.25 UNICOM 122.95

RCO 122.45 122.2 (TERRE HAUTE RADIO)

(R) APP/DEP CON 132.15 (SE/NE of active rwy) 127.2 (SW/NW of active rwy), 135.325**TOWER** 119.1 **GND CON** 121.9 **CLNC DEL** 124.75**AIRSPACE: CLASS C** svc continuous ctc **APP CON****RADIO AIDS TO NAVIGATION:** NOTAM FILE FWA.**(H) VORTACW** 117.8 FWA Chan 125 N40°58.74' W85°11.28' at fld. 793/00E.

VORTAC unusable byd 33 NM blo 2800'. DME unusable 055°-065° blo 7000'.

HOAGY NDB (LOM) 251 FW N40°55.83' W85°07.18' 313° 4.5 NM to fld.**ILS** 111.9 I-HVD Rwy 05. Class IIE. OM Unmonitored. LOC BC unusable. LOC unusable byd 25° right of course.**ILS** 109.9 I-FWA Rwy 32. Class IT. LOM HOAGY NDB.**ASR****COMM/NAV/WEATHER REMARKS:** APP CON sectorization based upon Fort Wayne rwy usage.

SMITH FLD (SMD) 4 N UTC-5(-4DT) N41°08.60' W85°09.17'

CHICAGO

835 B FUEL 100LL, JET A NOTAM FILE HUF

L-28J

RWY 05-23: H3124X60 (ASPH) D-40 LIRL

IAP

RWY 05: VASI(V2L)—GA 4.0° TCH 26'. Thld dsplcd 200'. Crops.

RWY 23: VASI(V2L)—GA 4.0 TCH 26'. Road.

RWY 13-31: H2922X100 (ASPH) D-40

RWY 13: Thld dsplcd 719'. Crops.

RWY 31: Road.

AIRPORT REMARKS: Attended 1200-0200Z±. 100' AGL athletic fld lgts
½ mile E of arpt. Birds on and invof arpt.

WEATHER DATA SOURCES: AWOS-3 124.55 (260) 490-4030.

COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ FORT WAYNE APP/DEP CON 132.15 (SE/NE of active rwy) 127.2
(SW/NW of active rwy)

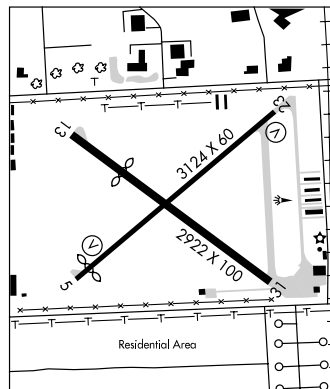
RADIO AIDS TO NAVIGATION: NOTAM FILE FWA.

FORT WAYNE (H) VORTACW 117.8 FWA Chan 125 N40°58.74'

W85°11.28' 009° 10 NM to fld. 793/00E.

WOLF LAKE (L) VORW 110.4 OLK N41°14.82' W85°29.84' 115°
16.8 NM to fld. NOTAM FILE HUF.

COMM/NAV/WEATHER REMARKS: APP CON sectorization based upon Fort
Wayne rwy usage.



FRANKFORT MUNI (FKR) 3 W UTC-5(-4DT) N40°16.41' W86°33.73'

CHICAGO

861 B S2 FUEL 100LL, JET A NOTAM FILE HUF

H-5E, 10F, L-27D

RWY 09-27: H5000X75 (ASPH) MIRL

IAP

RWY 09: REIL. PAPI(P2L)—GA 3.0° TCH 29'. Crops.

RWY 27: REIL. PAPI(P2L)—GA 3.0° TCH 26'. Crops.

RWY 04-22: H2527X70 (ASPH) MIRL S-12.5, D-20

RWY 04: Crops.

RWY 22: Road.

AIRPORT REMARKS: Attended 1300-2200Z±. MIRL Rwy 09-27 and Rwy
04-22 preset low ints, to increase ints and ACTIVATE REILS Rwy
09 and Rwy 27—CTAF.

WEATHER DATA SOURCES: AWOS-3 124.325 (765) 654-0328.

COMMUNICATIONS: CTAF/UNICOM 123.0

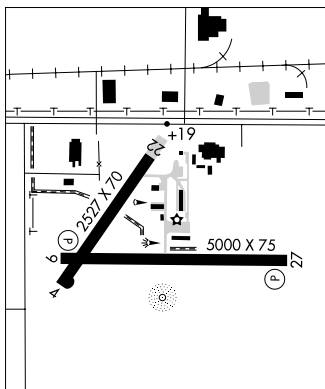
Ⓡ CHICAGO CENTER APP/DEP CON 123.85

RADIO AIDS TO NAVIGATION: NOTAM FILE OKK.

KOKOMO (H) VORTAC 113.5 OKK Chan 82 N40°31.67'

W86°03.48' 237° 27.7 NM to fld. 830/00E.

NDB (MHW) 278 FKR N40°16.23' W86°33.77' at fld. NDB
unmonitored 0000-1200Z±. NOTAM FILE HUF.



FRANKLIN FLYING FIELD (3FK) 3 S UTC-5(-4DT) N39°25.59' W86°03.50'

ST. LOUIS

740 B S4 FUEL 100LL NOTAM FILE HUF

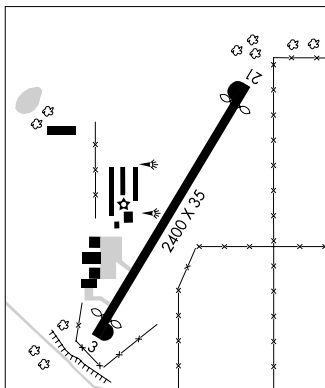
RWY 03-21: H2400X35 (ASPH)

RWY 03: Thld dsplcd 125'. Tree.

RWY 21: Thld dsplcd 165'. Crops.

AIRPORT REMARKS: Attended irregularly. Parachute Jumping. Rwy 03-21
thld lgts OTS indef.

COMMUNICATIONS: CTAF/UNICOM 122.7



FREEMAN MUNI (See SEYMOUR)**FRENCH LICK****FRENCH LICK MUNI** (FRH) 3 SW UTC-5(-4DT) N38°30.37' W86°38.22'

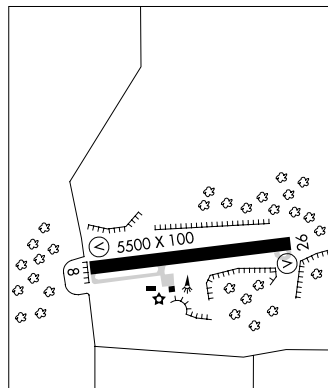
792 B S3 FUEL 100LL, JET A NOTAM FILE HUF

RWY 08-26: H5500X100 (ASPH) S-50, D-60 MIRL**RWY 08:** VASI(V4L)—GA 3.0° TCH 36'. Trees.**RWY 26:** REIL. VASI(V4L)—GA 3.0° TCH 38'. Trees.**AIRPORT REMARKS:** Attended 1400-2300Z+. For svc after hrs call pager: 888-237-6574. Deer on and invof arpt. ACTIVATE MIRL Rwy 08-26—122.8.**WEATHER DATA SOURCES:** AWOS-3 118.075 (812) 936-2252.**COMMUNICATIONS:** CTAF/UNICOM 122.8

Ⓡ LOUISVILLE APP/DEP 132.075 (East) 123.675 (West)

RADIO AIDS TO NAVIGATION: NOTAM FILE BMG.**HOOSIER (L) VORTAC** 110.2 OOM Chan 39 N39°08.63'

W86°36.78' 184° 38.2 NM to fld. 845/2W.

ST. LOUIS
H-5E, 10F, L-27D
IAP**PATOKA RESERVOIR LANDING AREA SPB** (Ø6I) 8 NW UTC-5(-4DT) N38°26.00' W86°41.47'

ST LOUIS

536 NOTAM FILE HUF

WATERWAY E-W: 16000X3500 (WATER)**SEAPLANE REMARKS:** Unattended. Seaplane Ops prohibited SS-SR. CAUTION: Low alt-high speed military training route activity, cto FSS for information. Lake use permit required. Call 812-685-2464.**COMMUNICATIONS:** CTAF 122.9**FULTON CO** (See ROCHESTER)**GALVESTON** (5I6) 3 NW UTC-5(-4DT) N40°35.05' W86°15.42'

CHICAGO

786 NOTAM FILE HUF

RWY 18-36: 2720X75 (TURF)**RWY 18:** Thld dsplcd 200'. Crops. Rgt tfc.**RWY 36:** Thld dsplcd 200'. Crops.**AIRPORT REMARKS:** Unattended. Ingress/egress must be coordinated with Grissom AFB apch control on frequency 121.05 and Twr on frequency 133.7. Rwy 18-36 edges and dsplcd thlds marked with yellow and black aluminum strips. Crops 100' E and W of centerline entire length of Rwy 18-36.**COMMUNICATIONS:** CTAF 122.9**GARIE** N41°34.35' W87°19.62' NOTAM FILE GYY.

CHICAGO

NDB (LOM) 236 GY 306° 4.7 NM to Gary/Chicago Intl.

GARY/CHICAGO INTL (GYG) 3 NW UTC-6(-5DT) N41°36.98' W87°24.77'

CHICAGO

591 B S4 FUEL 100LL, JET A OX 3 ARFF Index—See Remarks NOTAM FILE GYG

COPTER

Rwy 12-30: H7003X150 (ASPH-GRVD) S-75, D-157, ST-175, DT-250. HIRL CL

H-5E, L-28H, A

Rwy 12: REIL. PAPI(P4L)—GA 3.0° TCH 50'. Thld dsplcd 713'. Pole.

IAP, AD

Rwy 30: MALSR. PAPI(P4L)—GA 3.0° TCH 50'. Pole.

Rwy 02-20: H3603X100 (ASPH) S-18, D-28 MIRL

Rwy 02: REIL. PAPI(P2L)—GA 3.0° TCH 35'. Road.

Rwy 20: REIL. PAPI(P2L)—GA 3.0° TCH 39'. Pole.

AIRPORT REMARKS: Attended continuously. Unlighted 30' AGL obstruction 1700' SE apch end Rwy 30. Birds; coyotes and deer and other wildlife and migratory waterfowl on and invof arpt. No line of sight between intersecting rwy ends. Rwy 30 touchdown rwy visual range avbl. Class I, ARFF Index B. ARFF Index C avbl 4 hrs PPR ctc 219-949-4922. Rwy 02-20 avbl to air carrier with more than 19 passenger seats between Rwy 12-30 and Twy A for taxiing only. Twys A, A-1, A-2, A-4 and Twy C north of Rwy 12-30 avbl to air carrier acft with more than 9 seats. Twy Foxtrot military use only. Uncontrolled vehicles on ramps N side of artp. When twr clsd ACTIVATE HIRL Rwy 12-30, MIRL Rwy 02-20; REIL Rws 02, 12 and 20 and MALSR Rwy 30—CTAF. Ldg fee. Ldg fee for acft 12,500 lbs and over and all twin engine acft.

WEATHER DATA SOURCES: AWOS-3 (219) 944-0010.

COMMUNICATIONS: CTAF 125.6 ATIS 120.625

CHICAGO HEIGHTS RCO 122.1R, 114.2T (KANKAKEE RADIO)

CROWNPOINT RCO 123.65 (TERRE HAUTE RADIO)

Ⓡ **CHICAGO APP/DEP CON** 133.1

TOWER 125.6 (1100-0400Z) **GND CON** 121.9

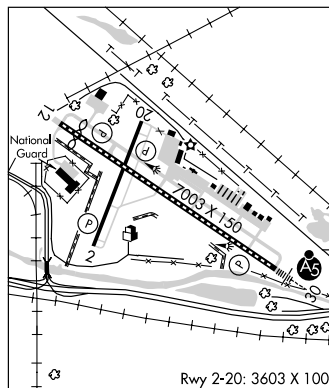
AIRSPACE: CLASS D svc 1100-0400Z other times CLASS G.

RADIO AIDS TO NAVIGATION: NOTAM FILE IKK.

CHICAGO HEIGHTS (L) VORTAC 114.2 CGT Chan 89 N41°30.60' W87°34.29' 046° 9.6 NM to fld. 630/2E.

GARIE NDB (LOM) 236 GY N41°34.35' W87°19.62' 306° 4.7 NM to fld.

ILS/DME 108.75 I-GYY Chan 24(Y) Rwy 30. Class IE. LOM GARIE NDB. Unmonitored when twr clsd.



GIPPER (See GIPPER, MI)

GLENNDAL (See KOKOMO)

GOSHEN MUNI (GSH) 3 SE UTC-5(-4DT) N41°31.58' W85°47.65'

CHICAGO

827 B S4 FUEL 100LL, JET A OX 3 NOTAM FILE GSH

H-5E, 10F, L-28I

Rwy 09-27: H6050X100 (ASPH-GRVD) S-45, D-60, DT-100 HIRL

IAP

Rwy 09: REIL. PAPI(P2L)—GA 3.0° TCH 33'. Tree.

Rwy 27: REIL. PAPI(P4L)—GA 3.0° TCH 47'. Tree.

Rwy 05-23: 2585X180 (TURF)

Rwy 05: P-line. **Rwy 23:** P-line.

AIRPORT REMARKS: Attended Mon-Sat 1200-0000Z, Sun 1300-2300Z. Parachute Jumping. Rwy 05 and Rwy 23 has white metal markers at sides and ends. HIRL Rwy 09-27 preset low ints, to increase ints and ACTIVATE REIL Rwy 09 and Rwy 27—CTAF.

WEATHER DATA SOURCES: ASOS 121.45 (574) 642-4231.

COMMUNICATIONS: CTAF/UNICOM 123.05

GOSHEN RCO 122.1R 113.7T (TERRE HAUTE RADIO)

Ⓡ **SOUTH BEND APP/DEP CON** 132.05 (Sun-Fri 1030-0500Z, Sat 1030-0445Z), other times ctc Ⓡ **CHICAGO CENTER APP/DEP CON** 135.9

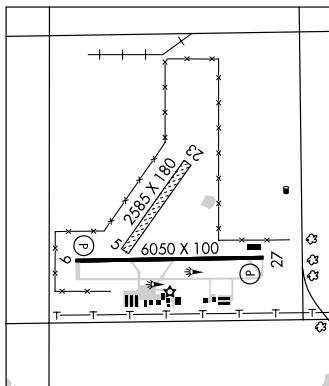
SOUTH BEND CLNC DEL 125.25

RADIO AIDS TO NAVIGATION: NOTAM FILE GSH.

(H) **VORTAC** 113.7 GSH Chan 84 N41°31.51'

W86°01.68' 090° 10.6 NM to fld. 850/00E.

ILS 108.3 I-GSH Rwy 27. Unmonitored. LOC BC unusable.



GREENCASTLE N39°42.84' W86°48.36' NOTAM FILE HUF.

ST. LOUIS

NDB (MHW) 521 TVX 187° 4.8 NM to Putnam Co.

L-27D

GREENCASTLE**PUTNAM CO**

(417) 3 SE UTC-5(-4DT) N39°38.01' W86°48.83'

842 B S4 FUEL 100LL, JET A1+ OX 1,2 TPA-1842 (1000) NOTAM FILE HUF

RWY 18-36: H4987X100 (ASPH) LIRL 0.6% up N

RWY 18: PAPI(P4L)—GA 3.0° TCH 20'. Crops.

RWY 36: PAPI(P4L)—GA 3.0° TCH 30'. Road.

AIRPORT REMARKS: Attended continuously. Deer on and invof arpt. 414' taxiway S end of Rwy 36. ACTIVATE LIRL (med ints only)

Rwy 18-36—CTAF.

WEATHER DATA SOURCES: AWOS-3 118.125 (765) 653-1789.

COMMUNICATIONS: CTAF/UNICOM 122.8

® INDIANAPOLIS APP/DEP CON 119.05

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

BRICKYARD (H) VORTACW 116.3 VHP Chan 110 N39°48.88'

W86°22.05' 241° 23.3 NM to fld. 823/1E.

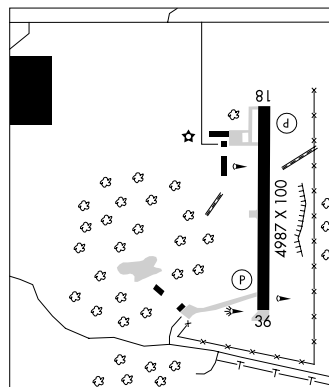
GREENCASTLE NDB (MHW) 521 TVX N39°42.84'

W86°48.36' 187° 4.8 NM to fld.

ST. LOUIS

L-27D

IAP

**GREENFIELD****POPE FLD**

(GFD) 2 NE UTC-5(-4DT) N39°47.42' W85°44.17'

895 NOTAM FILE HUF

RWY 18-36: 2165X150 (TURF) LIRL (NSTD)

RWY 18: Thld dspcd 165'. Crops.

RWY 36: Trees.

AIRPORT REMARKS: Unattended. Rwy 18-36 seasonal crops 85' E and W of rwy. Rwy 18-36 NSTD LIRL. NSTD spacing of lgts on pvc pipes and glass jar lenses. Rwy 18 dspcd thld marked with three yellow tires each side.

COMMUNICATIONS: CTAF 122.9

ST. LOUIS

GREENSBURG MUNI

(I34) 2 SW UTC-5(-4DT) N39°19.62' W85°31.35'

912 B S2 FUEL 100LL, JET A NOTAM FILE HUF

RWY 18-36: H3433X40 (ASPH) MIRL

RWY 18: VASI(V2L)—GA 2.8° TCH 19'. Thld dspcd 500'. Road.

RWY 36: VASI(V2L)—GA 2.8°. Thld dspcd 100'. Crops.

AIRPORT REMARKS: Attended Mon-Fri, 1400-2200Z+. Parachute Jumping. Rwy 36 seasonal crops 180' from thld OB 4'-10' high. ACTIVATE MIRL Rwy 18-36 and VASI Rwy 18 and Rwy 36—CTAF. Rwy 18 and Rwy 36 VASI OTS indef.

COMMUNICATIONS: CTAF 122.9

OSGOOD RCO 122.25 (TERRE HAUTE RADIO)

® INDIANAPOLIS APP/DEP CON 127.15

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

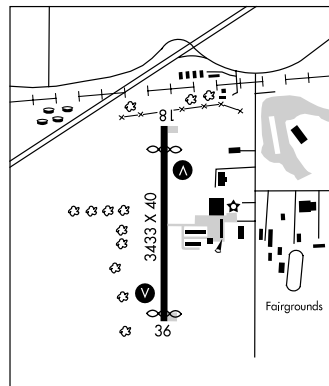
SHELBYVILLE (L) VORTAC 112.0 SHB Chan 57 N39°37.95'

W85°49.46' 141° 23.1 NM to fld. 810/1E. HIWAS.

ST. LOUIS

L-27E

IAP

**GREENWOOD MUNI**

(See INDIANAPOLIS)

GRIFFITH-MERRILLVILLE (Ø5C) 2 E UTC-6(-5DT) N41°31.19' W87°23.97'

CHICAGO

634 B S4 FUEL 100LL, JET A OX 2, 4 NOTAM FILE HUF

L-28H, A

RWY 08-26: H4900X75 (ASPH-GRVD) MIRL

IAP

RWY 08: REIL. PAPI(P2L)—GA 3.5° TCH 43'.

RWY 26: REIL. PAPI (P2R)—GA 4.0° TCH 33'. Thld dsplcd 1120'.

Trees.

AIRPORT REMARKS: Attended 1400-0200Z±. Unattended New Years Day, Easter, Thanksgiving, and Christmas. Deer on and invof arpt. ACTIVATE MIRL Rwy 08-26 and REIL Rwy 08 and Rwy 26 and PAPI Rwy 08 and Rwy 26—CTAF.

COMMUNICATIONS: CTAF/UNICOM 123.0

CHICAGO HEIGHTS RCO 122.1R 114.2T (KANKAKEE RADIO)

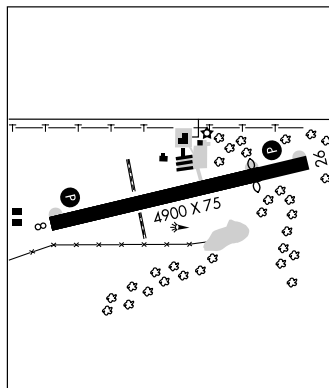
CROWNPOINT RCO 123.65 (TERRE HAUTE RADIO)

Ⓡ CHICAGO APP/DEP CON 133.1

RADIO AIDS TO NAVIGATION: NOTAM FILE IKK.

CHICAGO HEIGHTS (L) VORTAC 114.2 CGT Chan 89 N41°30.60'

W87°34.29' 084° 7.8 NM to fld. 630/2E.

**GRISSOM ARB** (See PERU)**HAGERSTOWN** (I61) 1S UTC-5(-4DT) N39°53.35' W85°09.80'

ST. LOUIS

1000 NOTAM FILE HUF

RWY 02-20: 4000X200 (TURF) LIRL

RWY 02: Thld dsplcd 200'. Crops.

RWY 20: Thld dsplcd 1070'. Tree.

AIRPORT REMARKS: Unattended. ACTIVATE LIRL Rwy 02-20—CTAF. Rwy 02-20 dsplcd thlds marked by lgt fixtures and yellow tires.

COMMUNICATIONS: CTAF/UNICOM 123.0**HANOVER****LEE BOTTOM** (64I) 6S UTC-5(-4DT) N38°37.89' W85°26.61'

ST. LOUIS

470 NOTAM FILE HUF

RWY 18-36: 4080X100 (TURF)

RWY 18: Trees.

RWY 36: Thld dsplcd 800'. Trees. Rgt tfc.

AIRPORT REMARKS: Attended irregularly dalgt hrs. Rwy 18-36 has a 30' dropoff at south end of rwy. Rwy 18-36 yellow squares flush with ground mark; rwy thlds and white traffic cones mark rwy boundary.

COMMUNICATIONS: CTAF 122.9**HARDENSTOWN****ACTION AIRPARK** (I38) 1 NE UTC-5(-4DT) N39°07.95' W84°49.72'

CINCINNATI

465 TPA-865 (400) NOTAM FILE HUF

RWY 02-20: 1577X100 (TURF)

RWY 02: Sign. Rgt tfc.

RWY 20: Thld dsplcd 225'. Road.

AIRPORT REMARKS: Attended dusk-dawn. Ultralight arpt. Rwy 02-20 marked by mowing; thld and Rwy 20 dsplcd thld marked with orange tfc cones. Ldg fee.

COMMUNICATIONS: CTAF 122.9**HARROLD** (See BUTLER)**HENDRICKS CO-GORDON GRAHAM FLD** (See INDIANAPOLIS)**HOAGY** N40°55.83' W85°07.18' NOTAM FILE FWA.

CHICAGO

NDB (LOM) 251 FW 313° 4.5 NM to Fort Wayne Intl

HOBART SKY RANCH (3HO) 2 NW UTC-6(-5DT) N41°33.25' W87°15.75'

CHICAGO

644 FUEL MOGAS NOTAM FILE HUF

L-281

RWY 18-36: H3125X40 (ASPH)

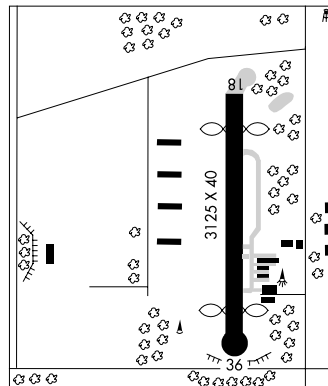
RWY 18: Thld dsplcd 502'. Tree.

RWY 36: Thld dsplcd 320'. Trees.

AIRPORT REMARKS: Attended 1400-2300Z†. Parachute Jumping. Trailer park 155' W of rwy. Rwy 18-36 cracks with grass growing through.

COMMUNICATIONS: CTAF/UNICOM 122.8**CROWNPOINT RCO** 123.65 (TERRE HAUTE RADIO)**RADIO AIDS TO NAVIGATION:** NOTAM FILE IKK.

CHICAGO HEIGHTS (L) VORTAC 114.2 CGT Chan 89 N41°30.60' W87°34.29' 077° 14.2 NM to fld. 630/2E.

**HOLIDAY INN LAKEVIEW** (See CLARKSVILLE)**HOOSIER** N39°08.63' W86°36.78' NOTAM FILE BMG.

ST. LOUIS

(L) VORTAC 110.2 OOM Chan 39 at Monroe Co. 845/2W. ASOS.

L-270

VOR portion unusable 310°-014° byd 12 NM, 014°-061° and 061°-090° byd 15 NM.

DME portion unusable 150°-340° byd 25 NM, 222°-310° byd 25 NM and 015°-090°.

RCO 122.1R 110.2T (TERRE HAUTE RADIO)**HUNTINGBURG** (HNB) 3 S UTC-6(-5DT) N38°14.94' W86°57.22'

ST. LOUIS

529 B S4 FUEL 100LL, JET A1 + OX 3 NOTAM FILE HNB

H-5E, 10F, L-27D

RWY 09-27: H5000X75 (ASPH-GRVD) S-28, D-33 MIRL 0.3% up E

IAP

RWY 09: REIL. PAPI(P4L)—GA 3.0° TCH 38'. Road.

RWY 27: REIL. VASI(V4L)—GA 3.0° TCH 49'.

AIRPORT REMARKS: Attended Mon-Fri 1800-0300Z†, Sat 1800-2200Z†. Rwy 09 60' lgtd towers 800' from rwy end 400' left. ACTIVATE MIRL Rwy 09-27, VASI Rwy 27 and PAPI Rwy 09 and REIL Rwys 09-27—CTAF.

WEATHER DATA SOURCES: AWOS-3 118.25 (812) 683-4003.**COMMUNICATIONS:** CTAF/UNICOM 122.8

Ⓡ EVANSVILLE APP/DEP CON 126.4 (1200-0500Z†) CLNC DEL 118.8

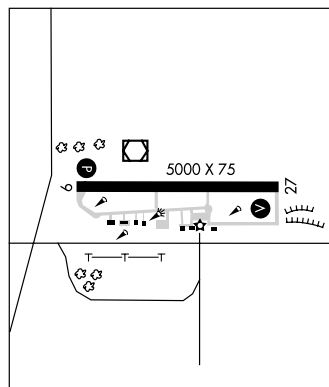
Ⓡ INDIANAPOLIS CENTER APP/DEP CON 128.3 (0500-1200Z†)

RADIO AIDS TO NAVIGATION: NOTAM FILE HNB.

(T) VORW/DME 109.2 HNB Chan 29 N38°15.03'

W86°57.37' at fld. 517/00E.

FERDINAND NDB (MHW) 239 FNZ N38°14.91' W86°50.27' 270° 5.5 NM to fld.



HUNTINGTON MUNI (HHG) 3 SE UTC-5(-4DT) N40°51.18' W85°27.43'

806 B S4 FUEL 100LL, JET A NOTAM FILE HUF

RWY 09-27: H5001X75 (ASPH-GRVD) S-38, D-50 MIRL

RWY 09: REIL. PAPI(P4L)—GA 3.0° TCH 36'. Trees.

RWY 27: REIL. PAPI(P4L)—GA 3.0° TCH 45'. Trees.

AIRPORT REMARKS: Attended 1300Z†-dusk. Arpt unattended holidays.

CAUTION: Deer on arpt early morning and evening hrs. MIRL Rwy

09-27 preset on low inst, to increase inst and ACTIVATE REIL

Rwys 09 and 27—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

⑧ FORT WAYNE APP/DEP CON 127.2

RADIO AIDS TO NAVIGATION: NOTAM FILE FWA.

FORT WAYNE (H) VORTACW 117.8 FWA Chan 125 N40°58.74'

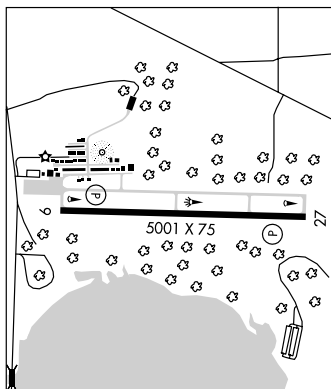
W85°11.28' 238° 14.4 NM to fld. 793/00E.

NDB (MHW) 417 HHG N40°51.34' W85°27.86' at fld. NOTAM
FILE HUF.

CHICAGO

H-5E, 10F, L-27E

IAP

**INDIANAPOLIS****EAGLE CREEK AIRPARK** (EYE) 7 W UTC-5(-4DT) N39°49.85' W86°17.66'

823 B S4 FUEL 100LL, JET A OX 1 NOTAM FILE EYE

RWY 03-21: H4200X75 (ASPH) S-12.5 MIRL

RWY 03: REIL. PAPI(P2L)—GA 3.0° TCH 30'. Trees.

RWY 21: MALS. PAPI(P2L)—GA 3.0° TCH 30' Road.

AIRPORT REMARKS: Attended 1200Z†-dusk. 100LL has 24 hr self svc.

MIRL Rwy 03-21 preset low ints, to increase ints and ACTIVATE

MALS Rwy 21 and REIL Rwy 03—CTAF.

WEATHER DATA SOURCES: ASOS 121.575 (317) 329-1754.**COMMUNICATIONS:** CTAF/UNICOM 122.8

⑧ INDIANAPOLIS APP/DEP CON 119.05 CLNC DEL 128.6

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

BRICKYARD (H) VORTACW 116.3 VHP Chan 110 N39°48.88'

W86°22.05' 073° 3.5 NM to fld. 823/1E.

AIRPA NDB (LOM) 209 EY N39°55.52' W86°14.28' 207° 6.2

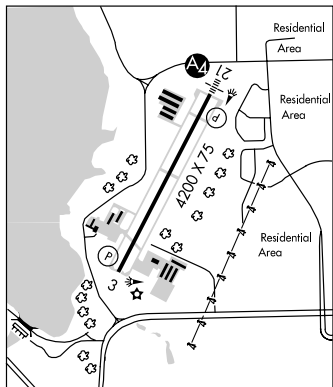
NM to fld. Unmonitored. NOTAM FILE EYE.

ILS 111.5 I-EYE. Rwy 21 LOM AIRPA NDB. LOC
only. LOC and LOM unmonitored.

ST. LOUIS

L-27D

IAP



GREENWOOD MUNI (HFY) 10 SE UTC-5(-4DT) N39°37.66' W86°05.28'

ST. LOUIS

822 B S4 FUEL 100LL, JET A OX 1, 2, 3, 4 TPA-1622(800) NOTAM FILE HUF

L-27D

RWY 01-19: H4901X75 (ASPH) HIRL

IAP

RWY 01: REIL. PAPI(P4L)—GA 3.0° TCH 39'. Tree.

RWY 19: REIL. PAPI(P4L)—GA 3.0° TCH 40'. Road.

AIRPORT REMARKS: Attended 1300Z±-dusk. Arpt unattended Christmas Day. High ints student training. HIRL Rwy 01-19 preset low inst; to increase ints ACTIVATE REIL Rwys 01 and 19—CTAF. Rwy 01-19 10' drainage ditch 125' right/left of centerline.

WEATHER DATA SOURCES: AWOS-3 118.525 (317) 882-5862.**COMMUNICATIONS:** CTAF/UNICOM 123.0

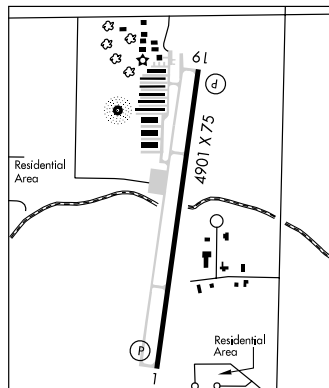
INDIANAPOLIS APP/DEP CON 124.95

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

SHELBYVILLE (L) VORTAC 112.0 SHB Chan 57 N39°37.95'

W85°49.46' 268° 12.2 NM to fld. 810/1E. HIWAS.

NDB (MHW) 398 HFY N39°37.96' W86°05.44' at fld.

**HENDRICKS CO-GORDON GRAHAM FLD** (2R2) 13 W UTC-5(-4DT) N39°44.81' W86°28.51'

ST. LOUIS

897 B FUEL 100LL NOTAM FILE HUF

L-27D

RWY 18-36: H4400X100 (ASPH) MIRL

IAP

RWY 18: REIL. PAPI(P2L)—GA 3.0° TCH 38. Trees.

RWY 36: REIL. PAPI(P2L)—GA 3.0° TCH 38. P-line.

AIRPORT REMARKS: Attended Mon-Fri 1300-2200Z±. MIRL Rwy 18-36 preset on low ints to increase ints ACTIVATE—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.7

INDIANAPOLIS APP CON 121.1

INDIANAPOLIS DEP CON 119.05

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

BRICKYARD (H) VORTACW 116.3 VHP Chan 110 N39°48.88' W86°22.05' 230° 6.4 NM to fld. 823/1E.

INDIANAPOLIS DOWNTOWN HELIPORT (8A4) ØN UTC-5(-4DT) N39°45.95' W86°08.93'

ST. LOUIS

732 B S1 FUEL JET A1+ NOTAM FILE HUF

L-27D

HELIPAD H1: H60X60 (CONC)

IAP

HELIPAD H1: VASI (NSTD). Buildings.

HELIPORT REMARKS: Attended Mon-Fri 1200-2030Z±, Sat-Sun on req. For attendant and information call 317-955-1271. For week-end assistance 317-487-5089. Fuel self serve. Minor repairs available on req call 317-487-5089. Helipad H1 all t/c remain S of heliport; utilize railroad tracks and interstate highways for ingress/egress. Apch and departure on easterly or westerly headings. ODALS westbound ingress. Helipad H1 NSTD PLASI—Pulsating apch slope indicator—on E apch. Helipad H1 building area to NE is lgtd. Heliport has noise abatement procedures contact heliport manager 317-955-1271. ACTIVATE ODALS; NSTD PLASI; and High Ints Pad Lgts—CTAF.

WEATHER DATA SOURCES: AWOS-3 118.25 (317) 955-3160.**COMMUNICATIONS:** CTAF/UNICOM 123.05

Ⓡ APP/DEP CON 125.275

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

SHELBYVILLE (L) VORTAC 112.0 SHB Chan 57 N39°37.95' W85°49.46' 297° 17 NM to fld. 810/1E.

HIWAS.

INDIANAPOLIS EXECUTIVE (TYQ) 14 NW UTC-5(-4DT) N40°01.84' W86°15.09'

CHICAGO

922 B S4 FUEL 100LL, JET A OX 3 NOTAM FILE HUF

H-5E, 10F, L-27D

RWY 18-36: H5500X100 (CONC-GRVD) S-45, D-60 HIRL

IAP

RWY 18: REIL. VASI(V2L)—GA 3.0° TCH 45'. Trees.

RWY 36: REIL. PAPI(P2L)—GA 3.0° TCH 57'. Crops.

AIRPORT REMARKS: Attended 1100-0100Z. For svcs after hrs call arpt manager on 317-339-1554. HIRL Rwy 18-36 preset low ints dusk to 0330Z, to increase ints and ACTIVATE REIL Rws 18 and 36 and VASI Rwy 18 and PAPI Rwy 36—CTAF. After 0330Z ACTIVATE HIRL Rwy 18-36 and REIL Rws 18 and 36 and VASI Rwy 18 and PAPI Rwy 36—CTAF.

WEATHER DATA SOURCES: AWOS-3 120.725 (317) 769-3154.

COMMUNICATIONS: CTAF/UNICOM 123.05

® **APP/DEP CON** 127.15 (Active Rwy 14-32 at IND) 124.65 (Active Rwy 05-23 at IND)

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

BRICKYARD (H) VORTACW 116.3 VHP Chan 110 N39°48.88'

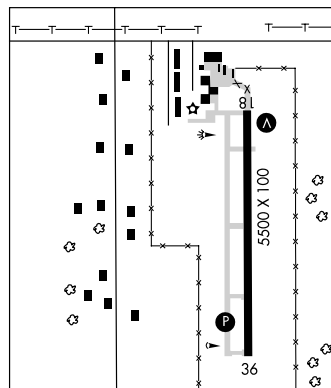
W86°22.05' 021° 14 NM to fld. 823/1E.

ZIONSVILLE NDB (MHW) 248 HZP N39°56.38' W86°14.92'

002° 5.5 NM to fld. Unmonitored.

ILS 111.3 I-TYQ Rwy 36.

COMM/NAV/WEATHER REMARKS: APP/DEP CON sectorization based on active rwy at Indianapolis International arpt.



INDIANAPOLIS INTL (IND) 7 SW UTC-5(-4DT) N39°43.04' W86°17.68'

ST. LOUIS

797 B S4 FUEL 100LL, JET A, A1+ OX 1, 3 LRA Class I, ARFF Index D

H-5E, 10F, L-27D

NOTAM FILE IND

IAP, AD

RWY 05L-23R: H11200X150 (CONC-GRVD) S-145, D-300, ST-175, DT-550 HIRL CL

RWY 05L: ALSF2. TDZL. PAPI(P4L)—GA 3.0° TCH 68'.

RWY 23R: MALSR. PAPI(P4L)—GA 3.0° TCH 64'. Antenna. 0.6% down

RWY 05R-23L: H10000X150 (CONC-GRVD) S-145, D-300, ST-175, DT-550 HIRL CL

RWY 05R: ALSF2. TDZL. PAPI(P4L)—GA 3.0° TCH 66'.

RWY 23L: MALSR. PAPI(P4L)—GA 3.0° TCH 69'. Antenna.

RWY 14-32: H7280X150 (ASPH-GRVD) S-145, D-300, ST-175, DT-550 HIRL

RWY 14: MALSR. PAPI(P4L)—GA 3.0° TCH 68'. Antenna.

RWY 32: MALSR. PAPI(P4R)—GA 3.0° TCH 73'. Trees.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 05L: TORA-11200 TODA-11200 ASDA-11200 LDA-11200

RWY 05R: TORA-10000 TODA-10000 ASDA-10000 LDA-10000

RWY 14: TORA-7280 TODA-7280 ASDA-7280 LDA-7280

RWY 23L: TORA-10000 TODA-10000 ASDA-10000 LDA-10000

RWY 23R: TORA-11200 TODA-11200 ASDA-11200 LDA-11200

RWY 32: TORA-7280 TODA-7280 ASDA-7280 LDA-7280

AIRPORT REMARKS: Attended continuously. Large flocks of birds on and

invof arpt. Twy V clsd to air carrier ops with more than 30 passenger seats. Primary student touch and go lds not permitted. Be alert to close proximity of Rwy 14-32 to apron. Twy H NE of Twy M not available for group V acft. Noise abatement procedures in effect contact arpt management 317-487-9594. Rwy 05R-23L and Rwy 14-32 have 200' blast pads both ends. Rwy 05L-23R has 400' blast pad both ends. Rwy 14 PAPI unusable byd 8° right of course. Twy H runs contiguous at air carrier ramp area. Flight Notification Service (ADCUS) available.

NOTE: See Special Notices Section-Intersection Departures During Period of Darkness.

WEATHER DATA SOURCES: ASOS (317) 241-0348. LLWAS. TDWR.

COMMUNICATIONS: D-ATIS 134.25 UNICOM 122.95

RCO 122.55 (TERRE HAUTE RADIO)

Ⓡ **APP CON** 127.15 (E of active rwy) 124.65 (W of active rwy) 119.3

INDY TOWER 120.9 (Rwy 14-32 and Rwy 05R-23L) 127.82 (Rwy 05L-23R) **GND CON** 121.9, 121.8

CLNC DEL 128.75 **PRE TAXI CLNC** 128.75

Ⓡ **DEP CON** 124.95 (East) 119.05 (West)

AIRSPACE: CLASS C svc continuous etc **APP CON**

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

BRICKYARD (H) VORTAC 116.3 VHP Chan 110 N39°48.88' W86°22.05' 149° 6.7 NM to fld. 823/1E.

PULLY NDB (LOM) 266 IN N39°37.74' W86°25.10' 049° 7.8 NM to fld. NOTAM FILE IND.

COLFA NDB (LOM) 232 CO N39°39.42' W86°11.13' 308° 6.2 NM to fld.

BRINN NDB (LOM) 219 OQ N39°37.04' W86°24.47' 043° 8.0 NM to fld.

LAREZ NDB (LOM) 349 FV N39°47.19' W86°11.78' 230° 6.2 NM to fld.

ILS/DME 111.75 I-IND Chan 54(Y) Rwy 05L. Class IIID. LOM PULLY NDB. LOC unusable byd 20° right of course.

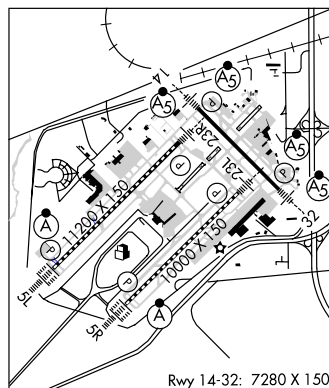
ILS/DME 111.15 I-OQV Chan 48(Y) Rwy 05R. LOM BRINN NDB.

ILS/DME 111.75 I-UZK Chan 54(Y) Rwy 23R. Class 1B.

ILS/DME 111.15 I-FVJ Chan 48(Y) Rwy 23L. Class 1A. LOM LAREZ NDB. Glide Slope unusable 5° left of LOC course.

ILS 110.5 I-BJP Rwy 14. Class IT.

ILS 110.5 I-COA Rwy 32. Class IT. LOM COLFA NDB. LOC unusable byd 30° left and right of course.



INDIANAPOLIS METROPOLITAN (UMP) 8 NE UTC-5(-4DT) N39°56.11' W86°02.70'

ST. LOUIS

811 B S4 FUEL 100LL, JET A TPA 1811(1000) NOTAM FILE HUF

L-27D

RWY 15-33: H3850X100 (ASPH-AFSC) S-17 MRL 0.6% up SE

IAP

RWY 15: REIL. PAPI(P4L)—GA 3.0° TCH 37'. Road.

RWY 33: REIL. PAPI(P4L)—GA 3.5° TCH 27'. Building.

AIRPORT REMARKS: Attended 1200-0200Z. Acft tkf/ldg from Rwy 15 during calm wind/crosswind conditions; during any questionable period Rwy 15 shall be preferred rwy—call arpt manager 317-487-9594.

WEATHER DATA SOURCES: AWOS-3 338 UMP (317) 842-3911.

COMMUNICATIONS: CTAF/UNICOM 123.0

⑧ INDIANAPOLIS APP/DEP CON 127.15 CLNC DEL 121.625

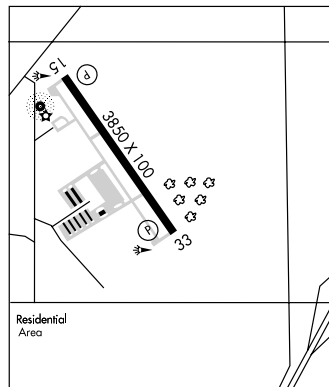
RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

SHELBYVILLE (L) VORTAC 112.0 SHB Chan 57 N39°37.95'

W85°49.46' 330° 20.8 NM to fld. 810/1E. HIWAS.

METROPOLITAN NDB (MHW) 338 UMP N39°56.26'

W86°03.01' at fld. AWOS-3.

**MOUNT COMFORT** (MQJ) 12 E UTC-5(-4DT) N39°50.61' W85°53.82'

ST. LOUIS

862 B S4 FUEL 100LL, JET A NOTAM FILE HUF

H-5E, 10F, L-27D

RWY 07-25: H5500X100 (ASPH-GRVD) S-30, D-65, ST-83 HIRL

IAP

RWY 07: REIL. PAPI(P4L)—GA 3.0° TCH 46'. Trees.

RWY 25: MALSR. PAPI(P4L)—GA 3.0° TCH 46'. Trees.

RWY 16-34: H3901X75 (CONC) S-12.5 MRL

RWY 16: VASI(V2L)—GA 3.0° TCH 31'. Trees.

RWY 34: REIL. VASI(V2L)—GA 3.0° TCH 30'.

AIRPORT REMARKS: Attended 1130-0300Z. For attendant on Christmas and Thanksgiving Day or for outside normal opr hrs call 317-335-3320. Rwy 16-34 and Twy B not avbl to air carrier acft with more than 30 passenger seats. ACTIVATE HIRL Rwy 07-25 and MALSR Rwy 25—CTAF.

WEATHER DATA SOURCES: AWOS-3 124.175 (317) 335-3037.

COMMUNICATIONS: CTAF/UNICOM 122.7

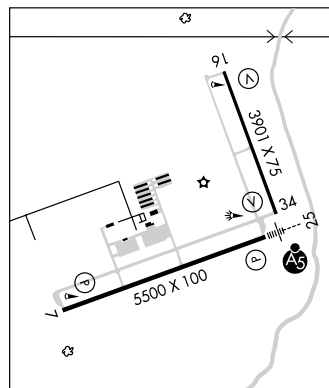
⑧ INDIANAPOLIS APP/DEP CON 127.15 CLNC DEL 119.25

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

SHELBYVILLE (L) VORTAC 112.0 SHB Chan 57 N39°37.95'

W85°49.46' 344° 13.1 NM to fld. 810/1E. HIWAS.

ILS 108.7 I-MQJ Rwy 25. Unmonitored.



POST-AIR (7L8) 6 E UTC-5(-4DT) N39°45.00' W86°00.83'

ST LOUIS

861 NOTAM FILE HUF

L-270

RWY 10-28: H3750X47 (ASPH) LIRL

RWY 10: Trees. Rgt tfc.

RWY 28: Thld dspcd 1269'. Trees.

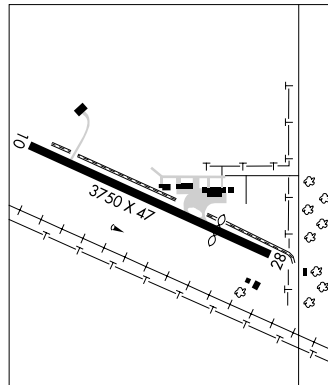
AIRPORT REMARKS: Attended irregularly. Lgtd TV-twr 2640' N of apch end Rwy 28. For LIRL Rwy 10-28 ctc Indianapolis apch control.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

SHELBYVILLE (L) VORTAC 112.0 SHB Chan 57 N39°37.95'

W85°49.46' 308° 11.3 NM to fld. 810/1E. **HIWAS.**



JASPER CO (See RENSSELAER)

JEFFERSONVILLE

CLARK RGNL (JVY) 5 N UTC-5(-4DT) N38°21.93' W85°44.29'

ST LOUIS

474 B S4 **FUEL** 100LL, JET A OX 1, 3 TPA-1274(800) NOTAM FILE HUF

H-5E, 10F, L-27E

RWY 18-36: H5500X100 (ASPH-GRVD) S-45, D-60 MIRL

IAP

RWY 18: MALSR. REIL. VASI (V2L)—GA 3.0° TCH 27'. P-line.

RWY 36: REIL. VASI (V2L)—GA 3.3° TCH 25'. Tree.

RWY 14-32: H3899X75 (ASPH) S-12 MIRL

RWY 14: REIL PAPI (P2L)—GA 3.0° TCH 40'. Trees.

RWY 32: REIL PAPI (P2L)—GA 3.38° TCH 43'. Brush.

AIRPORT REMARKS: Attended continuously. Deer and birds on and in/of arpt. High ints student activity. MIRL Rwy 18-36 ops dusk-dawn, ACTIVATE REIL Rwy 18 and Rwy 36, and VASI Rws 18 and 36 and MALSR Rwy 18—CTAF. All lighting Rwy 14-32 by prior request, call 812-246-5491.

WEATHER DATA SOURCES: AWOS-3 118.575 (812) 246-1278. SAWRS.

COMMUNICATIONS: CTAF/UNICOM 122.7

® **LOUISVILLE APP/DEP CON** 132.075 (East) 123.675 (West)

LOUISVILLE CLNC DEL 118.05

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

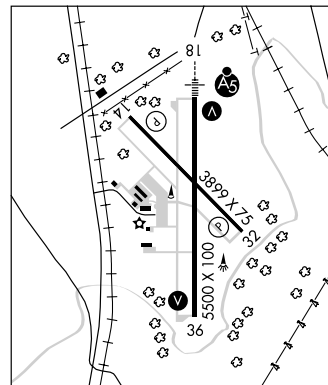
NABB (L) VORTAC 112.4 ABB Chan 71 N38°35.33'

W85°38.16' 199° 14.2 NM to fld. 710/1E. **HIWAS.**

CATCH NDB (LOM) 331 JV N38°28.44' W85°44.23'. 182°

6.5 NM to fld.

ILS 111.7 I-JVY **Rwy 18.** LOM CATCH NDB. GS unusable for autocoupled apchs blo 988' MSL.



KENDALLVILLE MUNI (C62) 2 N UTC-5(-4DT) N41°28.36' W85°15.65'

CHICAGO

1005 B S4 FUEL 100LL, JET A NOTAM FILE HUF

L-281

RWY 10-28: H4400X75 (ASPH) S-12.5 MIRL

IAP

RWY 10: REIL. PAPI(P2L)—GA 3.0° TCH 23'. Road.

RWY 28: REIL. PAPI(P2L)—GA 3.0° TCH 23'. Road.

AIRPORT REMARKS: Attended 1300-0300Z†. Glider ops May-Nov 1400Z†-SS. ACTIVATE MIRL Rwy 10-28; REIL Rwy 10 and 28—CTAF. Crops 160' N of centerline entire rwy length. Rwy 10 100' from rwy end ground slopes down to 5' below rwy height.

WEATHER DATA SOURCES: AWOS-3 119.925 (260) 347-2967.**COMMUNICATIONS:** CTAF/UNICOM 122.8

Ⓡ **FORT WAYNE APP/DEP CON** 127.2 (SW/NW of active rwy) 132.15

(SE/NE of active rwy)

RADIO AIDS TO NAVIGATION: NOTAM FILE FWA.**FORT WAYNE (H) VORTACW** 117.8 FWA Chan 125 N40°58.74'

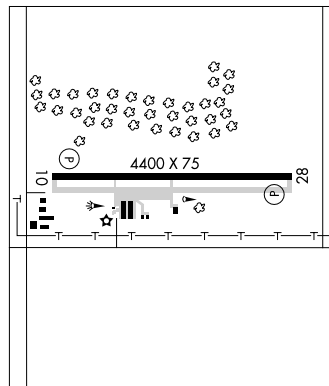
W85°11.28' 354° 29.8 NM to fld. 793/00 E.

WOLF LAKE (L) VORW 110.4 OLK N41°14.82' W85°29.84' 041°

17.3 NM to fld. NOTAM FILE HUF.

COMM/NAV/WEATHER REMARKS: APP CON sectorization based upon Fort

Wayne rwy usage.

**KENTLAND MUNI** (50I) 1 SE UTC-6(-5DT) N40°45.52' W87°25.69'

CHICAGO

698 B S4 FUEL 100LL, JET A NOTAM FILE HUF

L-27D

RWY 09-27: H3504X50 (ASPH) HIRL

IAP

RWY 09: REIL. PAPI(P2L)—GA 3.0° TCH 36'. Crops.

RWY 27: REIL. PAPI(P2L)—GA 3.0° TCH 25'. Road.

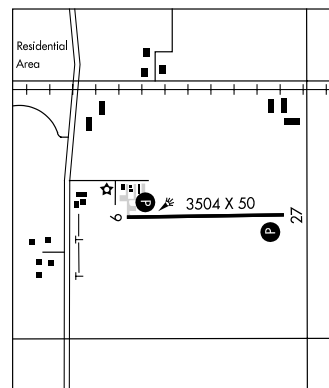
AIRPORT REMARKS: Attended Mon-Sat 1400-2200Z†. Arpt unattended on holidays. 100LL and Jet A fuel avbl self svc. Rwy 09-27 unlgtd +37' p-line 1267' from west end marked with red balls. HIRL Rwy 09-27 ops low ints, to increase ints and ACTIVATE REIL Rwy 09 and Rwy 27 and PAPI Rwy 09 and Rwy 27—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ **CHICAGO CENTER APP/DEP CON** 132.5

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.**BOILER (H) VORTACW** 115.1 BVT Chan 98 N40°33.37'

W87°04.16' 306° 20.4 NM to fld. 750/1E. HIWAS.

**KNOX** N41°19.32' W86°38.96'. NOTAM FILE HUF.

CHICAGO

(H) **VOR/DME** 115.6 OXI Chan 103 at Starke Co. 690/00E.

H-5E, 10F, L-281

VOR portion unusable: 213°-223° byd 35 NM blo 2700'

019°-039° blo 17500' between 25-36 NM

DME portion unusable: 352°-342° byd 30 NM blo 3000'

RCO 122.1R 115.6T (TERRE HAUTE RADIO)

KNOX**STARKE CO** (OXI) 3 NW UTC-6(-5DT) N41°19.81' W86°39.89'**CHICAGO**850 B **FUEL** 100LL NOTAM FILE HUF

L-281

RWY 18-36: H4401X75 (ASPH) S-30 MIRL

IAP

RWY 18: REIL. PAPI(P2L)—GA 3.0° TCH 24'. Road. Rgt tfc.**RWY 36:** REIL. PAPI(P2L)—GA 3.0° TCH 24'. Tree.**RWY 09-27:** 3096X145 (TURF)**RWY 09:** Thld dsplcd 285'. Crops.**RWY 27:** P-line.**AIRPORT REMARKS:** Attended 1400Z-0000Z†. Unattended Memorial

Day, July 4th, Labor Day and Christmas, unless by prior req.

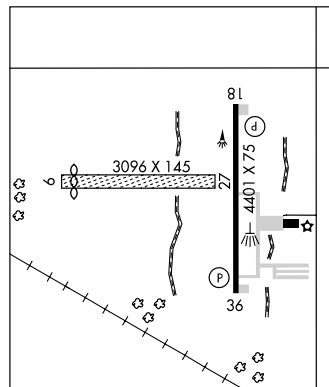
100LL self svc. Rwy 09-27 edges, thlds and Rwy 09 dsplcd thld marked with yellow cones.

WEATHER DATA SOURCES: AWOS-3 135.775 (574) 772-2041.**COMMUNICATIONS:** CTAF/UNICOM 122.8**KNOX RCO** 122.1R 115.6T (TERRE HAUTE RADIO)

Ⓡ **SOUTH BEND APP/DEP CON** 132.05 (Sun-Fri 1030-0500Z†, Sat 1030-0445Z†), other times ctc
 Ⓡ **CHICAGO CENTER APP/DEP CON** 135.9

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

KNOX (H) VOR/DME 115.6 OXI Chan 103 N41°19.32' W86°38.96' at fld. 690/00E.

**KOKOMO****GLENNDALE** (8I3) 5 SW UTC-5(-4DT) N40°26.00' W86°12.20'**CHICAGO**850 S2 **FUEL** 100LL, MOGAS NOTAM FILE HUF**RWY 18-36:** 2048X110 (TURF)**RWY 18:** Thld dsplcd 292'. P-line. Rgt tfc.**RWY 36:** Thld dsplcd 300'. Road.**AIRPORT REMARKS:** Attended Mon-Fri dalgt hrs. Rwy 18 and Rwy 36 dsplcd thlds marked with yellow metal markers.

Rwy 18-36 crops 55' left and right of centerline whole length of rwy.

COMMUNICATIONS: CTAF/UNICOM 122.9**KOKOMO MUNI** (OKK) 4 NE UTC-5(-4DT) N40°31.69' W86°03.54'**CHICAGO**830 B S4 **FUEL** 100LL, JET A1 + OX 3 NOTAM FILE OKK

H-5E, 10F, L-27D

RWY 05-23: H5201X150 (ASPH-GRVD) S-56, D-75, ST-95, DT-95

IAP

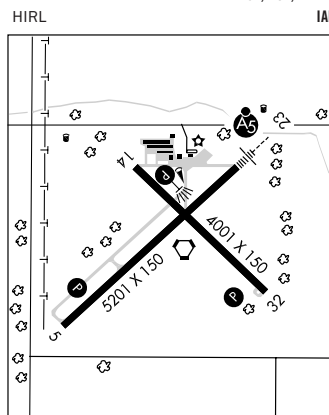
RWY 05: REIL. PAPI(P2L). Trees.**RWY 23:** MALSR. Silo.**RWY 14-32:** H4001X150 (ASPH-GRVD) S-50, D-60, DT-95 MIRL**RWY 14:** REIL. PAPI(P2L).**RWY 32:** REIL. PAPI(P2L). Tree.

AIRPORT REMARKS: Attended 1200-0000Z†. ACTIVATE HIRL Rwy 05-23 and MIRL Rwy 14-32; PAPI and REIL Rwys 05; 14; 32; and MALSR Rwy 23—CTAF. Rwy 32 REIL OTS indef.

WEATHER DATA SOURCES: AWOS-3 113.5 OKK (765) 452-3014.**COMMUNICATIONS:** CTAF/UNICOM 123.0**KCO** 122.1R 113.5T (TERRE HAUTE RADIO)

Ⓡ **GRISOM APP/DEP CON** 121.05 (1200-0400Z†) **CLNC DEL** 120.0

Ⓡ **CHICAGO CENTER APP/DEP CON** 121.05 (0400-1200Z†)

RADIO AIDS TO NAVIGATION: NOTAM FILE OKK.(H) **VORTAC** 113.5 OKK Chan 82 N40°31.67'W86°03.48' at fld. 830/00E. **AWOS-3.****ILS** 108.9 I-OKK Rwy 23. Unmonitored.**LAFAYETTE** N40°24.74' W86°56.22'**CHICAGO****KCO** 122.35 122.2 (TERRE HAUTE RADIO)

L-27D

LAFAYETTE**PURDUE UNIVERSITY** (LAF) 2 SW UTC-5(-4DT) N40°24.74' W86°56.21'**CHICAGO**

606 B S4 FUEL 100LL, JET A OX 1, 2 TPA-1606(1000) Class IV, ARFF Index A H-5E, 10F, L-27D

NOTAM FILE LAF

IAP, AD

RWY 10-28: H6600X150 (ASPH-GRVD) S-90, D-110, ST-140, DT-165 HIRL**RWY 10:** MALSR. PAPI(P4L)—GA 3.0° TCH 50'. Trees.**RWY 28:** REIL. VASI(V4R)—GA 3.0° TCH 47'. Trees.**RWY 05-23:** H4225X100 (ASPH) S-48, D-58, DT-90 MIRL

0.3 % up NE

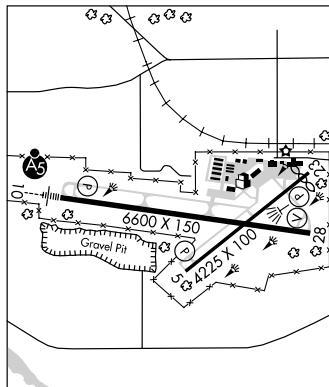
RWY 05: REIL. PAPI(P2L)—GA 3.0° TCH 38'.**RWY 23:** REIL. PAPI(P2L)—GA 3.0° TCH 39'. Thld dspcd 313'.

Fence.

LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 10	05-23	4600

AIRPORT REMARKS: Attended 1100-0300Z±. 48 hr PPR for unscheduled air carrier ops with more than 30 passenger seats; call arpt manager 765-743-3442. Air carrier ops involving acft with more than 30 passenger seats are not authorized in excess of 15 minutes before or after scheduled arrival/dep times without prior coordination with arpt manager and confirmation that ARFF is avbl prior to txf or landing. Rwy 05-23 restricted to acft with wingspan of 79' or less. Rwy 05-23 not avbl for air carrier ops. Intensive student training. Twr N visibility reduced when sports fld flood lgts opr ½ mile N of arpt. For MIRL Rwy 05-23 and Rwy 10-28 ctc twr. When twr clsd ACTIVATE HIRL Rwy 10-28; MALSR Rwy 10 and REILS Rwy 05, Rwy 23 and Rwy 28—CTAF.

WEATHER DATA SOURCES: ASOS 127.75 (765) 743-9687.**COMMUNICATIONS:** CTAF 119.6 ATIS 127.75 UNICOM 122.95**LAFAYETTE RCO** 122.35 122.2 (TERRE HAUTE RADIO)**®CHICAGO CENTER APP/DEP CON** 123.85**LAFAYETTE TOWER** 119.6 (1200-0200Z±) **GND CON** 121.9**AIRSPACE:** CLASS D svc 1200-0200Z± other times CLASS E.**RADIO AIDS TO NAVIGATION:** NOTAM FILE HUF.**BOILER (H) VORTACW** 115.1 BVT Chan 98 N40°33.37' W87°04.16' 144° 10.5 NM to fld. 750/1E HIWAS.**EARLE NDB (LOM)** 401 LA N40°25.59' W87°03.11' 100° 5.3 NM to fld. Unmonitored. NOTAM FILE LAF.**ILS** 110.3 I-LAF Rwy 10 LOM EARLE NDB. ILS unmonitored when twr clsd.**COMM/NAV/WEATHER REMARKS:** Emerg frequency 121.5 not avbl at twr.**LAKE MONROE SPB** (See BLOOMINGTON)**LAKE VILLAGE** (C98) 1 NW UTC-6(-5DT) N41°09.00' W87°27.75'**CHICAGO**

644 S4 NOTAM FILE HUF

RWY 18-36: 2000X140 (TURF) LIRL**RWY 18:** Road.**RWY 36:** Road.**AIRPORT REMARKS:** Attended SR to SS. CAUTION: Vehicular txc on roadway surrounding rwy. Deer on and invof arpt.

Rwy 18-36 width includes a full length 38' asph strip down the middle of the rwy. Rwy 18-36 thlds marked with 3 yellow tires/fgts each side. ACTIVATE LIRL Rwy 18-36—CTAF.

COMMUNICATIONS: CTAF 122.9

LA PORTE MUNI (PPO) 3 S UTC-6(-5DT) N41°34.35' W86°44.07'

CHICAGO

812 B S2 FUEL 100LL, JET A, MOGAS NOTAM FILE HUF

H-5E, 10F, L-281

RWY 02-20: H5000X75 (ASPH-GRVD) S-18 MIRL

IAP

RWY 02: REIL. PAPI(P2L)—GA 3.0° TCH 22'. Trees.

RWY 20: REIL. PAPI(P2L)—GA 3.45° TCH 27'. Trees.

RWY 14-32: H2800X60 (ASPH) 0.4% up NW

RWY 14: Thld dsplcd 200'. Road.

RWY 32: Thld dsplcd 200'. Road.

AIRPORT REMARKS: Attended Mon-Fri 1300-2300Z, Sat-Sun 1400-2200Z. For svc other hrs call 219-363-5109 or 219-608-4707. CAUTION: Farm equipment on or near acft ops area. ACTIVATE MIRL Rwy 02-20; REIL and PAPI Rwy 02-20—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.825 (219) 326-6916.**COMMUNICATIONS:** CTAF/UNICOM 123.0

KNOX RCO 122.1R, 115.6T (TERRE HAUTE RADIO)

Ⓡ **SOUTH BEND APP/DEP CON** 132.05 (Sun-Fri 1030-0500Z, Sat 1030-0445Z), other times ctc Ⓡ **CHICAGO CENTER APP/DEP CON** 135.9

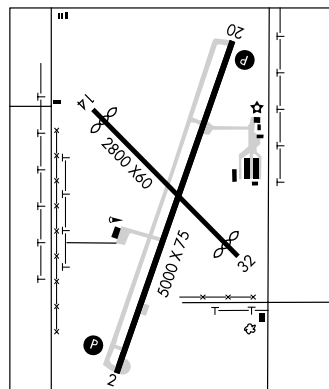
RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

KNOX (H) VOR/DME 115.6 OXI Chan 103 N41°19.32'

W86°38.96' 346° 15.5 NM to fld. 690/00E.

NDB (MHW) 356 IUL N41°29.94' W86°46.27' 024° 4.7 NM to fld. NDB unmonitored 0100-1300Z.

ILS 110.95 I-PPO Rwy 02. LOC only. LOC unmonitored 0100-1300Z.

**LAREZ** N39°47.19' W86°11.78' NOTAM FILE IND.

ST LOUIS

NDB (LOM) 349 FV 230° 6.2 NM to Indianapolis Intl.

LARSH (See COLFAX)**LEBANON****BOONE CO** (614) 2 SE UTC-5(-4DT) N40°00.44' W86°26.43'

CHICAGO

959 B S4 TPA-1900 (941) NOTAM FILE HUF

L-27D

RWY 18-36: H3600X30 (CONC) S-10.5 LIRL (NSTD)

RWY 18: Crops. RWY 36: Thld dsplcd 200'. Crops.

AIRPORT REMARKS: Attended 1300Z-dusk. Ultralights on and invof arpt.

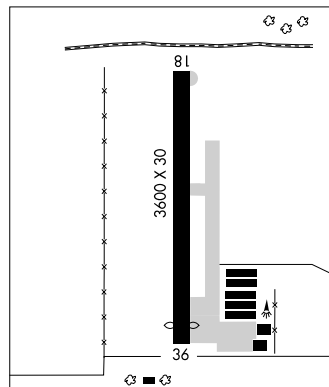
Rwy 18-36 has loose gravel and cracks. Rwy 18-36 NSTD

LIRL-lights 24' from rwy edge. ACTIVATE LIRL Rwy 18-36—122.8.

COMMUNICATIONS: CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE HUF.

BRICKYARD (H) VORTACW 116.3 VHP Chan 110 N39°48.88'

W86°22.05' 343° 12 NM to fld. 823/1E.

**LEE BOTTOM** (See HANOVER)**LINTON****MORRISON FLIGHT PARK ULTRALIGHT** (4U8) 2 SW UTC-5(-4DT) N39°01.30' W87°11.22'

ST. LOUIS

520 NOTAM FILE HUF

RWY 18U-36U: 1225X70 (TURF)

RWY 36U: Thld dsplcd 225'. Road.

AIRPORT REMARKS: Unattended. 400' twr 900' northwest of Rwy 36 and 390' twr ½ mile ENE of Rwy 36. Rwy 36 dsplcd thld marked with 2 yellow tires on each side of rwy.

COMMUNICATIONS: CTAF 122.9

LOGANSPOUT/CASS CO (GGP) 2S UTC-5(-4DT) N40°42.68' W86°22.49'

CHICAGO

738 B S4 FUEL 100LL JET A NOTAM FILE HUF

L-27D

RWY 09-27: H4477X75 (ASPH-GRVD) S-20 MIRL

IAP

RWY 09: PAPI(P2L)—GA 3.0° TCH 28'. Thld dsplcd 215'. Road.

RWY 27: PAPI(P2R)—GA 3.0° TCH 36'. Road.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 09: TORA-4480 TODA-4480 ASDA-4480 LDA-4262

RWY 27: TORA-4262 TODA-4262 ASDA-4262 LDA-4262

AIRPORT REMARKS: Attended 1330Z±-dusk. Fuel self svc. CAUTION: Sanitary landfill 1 1/2 miles NE of arpt. MIRL Rwy 09-27 ops low ints, to increase ints—CTAF.**COMMUNICATIONS:** CTAF/UNICOM 122.8

KOKOMO RCO 122.1R 109.8T (TERRE HAUTE RADIO)

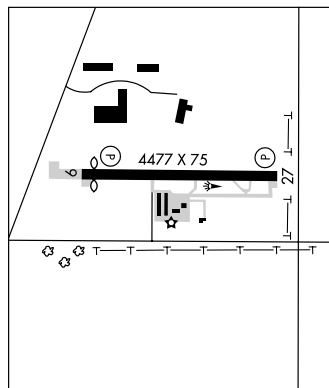
Ⓡ GRISSOM APP/DEP CON 121.05 (1200-0400Z±)

Ⓡ CHICAGO CENTER APP/DEP CON 121.05 (0400-1200Z±)

RADIO AIDS TO NAVIGATION: NOTAM FILE OKK.

KOKOMO (H) VORTAC 113.5 OKK Chan 82 N40°31.67'

W86°03.48' 307° 18.2 NM to fld. 830/00E.

**LOWELL** (C97) 5 SW UTC-6(-5DT) N41°13.81' W87°30.46'

CHICAGO

675 B FUEL 100LL NOTAM FILE HUF

L-28H

RWY 18-36: 3041X100 (TURF) LIRL 0.7% up N

IAP

RWY 18: Thld dsplcd 555'. Tree. Rgt tfc. RWY 36: Crops.

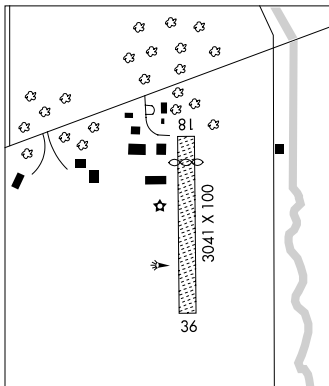
AIRPORT REMARKS: Attended 1300Z±-dusk. Deer on and invof arpt. Rwy 18-36 seasonal crops 75' E and 87' W of centerline. Snow removal and mowing with large tractor. Seasonal agriculture equipment along both sides of rwy and apch end Rwy 36. For rwy lgts and rotating bcn phone 219-696-9603. Rwy 18-36 thlds marked with white barrel halves and lgt fixtures.**COMMUNICATIONS:** CTAF 122.9

Ⓡ CHICAGO CENTER APP/DEP CON 132.95

RADIO AIDS TO NAVIGATION: NOTAM FILE IKK.

PEOTONE (L) VORTAC 113.2 EON Chan 79 N41°16.18'

W87°47.46' 098° 13 NM to fld. 690/2E.



MADISON MUNI (IMS) 4 W UTC-5(-4DT) N38°45.60' W85°27.88'

ST. LOUIS

819 B FUEL 100LL, JET A NOTAM FILE HUF

H-5E, 10F, L-26F, 27E

RWY 03-21: H5000X75 (ASPH) S-30 HIRL

IAP

RWY 03: MALSF. PAPI(P4L)—GA 3.5° TCH 42'. Thld dsplcd 258'.

Trees.

RWY 21: REIL. PAPI(P2L)—GA 3.0° TCH 39'. Thld dsplcd 318'.

Trees.

AIRPORT REMARKS: Attended SR-dusk. Arpt unattended Christmas Day.

Fuel self serve. IFR clearance not avbl when R-3403 is active.

ACTIVATE HIRL Rwy 03-21, MALSF Rwy 03, PAPI Rwy 03 and

Rwy 21, REIL Rwy 21—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.175 (812) 866-1798.**COMMUNICATIONS:** CTAF/UNICOM 123.0

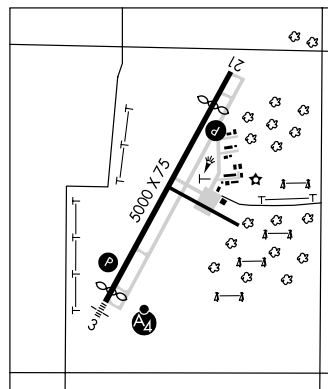
① LOUISVILLE APP/DEP CON 132.075 (East) 123.675 (West)

GCO 121.725 (STANDIFORD CLNC and FLIGHT SERVICES)

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

NABB (L) VORTAC 112.4 ABB Chan 71 N38°35.33'

W85°38.16' 037° 13 NM to fld. 710/1E. HIWAS.

**MARION MUNI** (MZZ) 3 SW UTC-5(-4DT) N40°29.39' W85°40.78'

CHICAGO

859 B S4 FUEL 100LL, JET A OX 2, 4 NOTAM FILE HUF

H-5E, 10F, L-27D

RWY 04-22: H6000X100 (ASPH-GRVD) S-40, D-48, DT-70 HIRL

IAP

RWY 04: MALS. RWY 22: REIL. VASI(V2L). Trees.

RWY 15-33: H3596X100 (ASPH) S-22, D-32 HIRL

RWY 15: REIL. PAPI(P2L)—GA 3.25° TCH 37'. Trees.

RWY 33: REIL. PAPI(P2L)—GA 3.0° TCH 34'. Trees.

AIRPORT REMARKS: Attended Mon-Fri 1200-2300Z, Sat-Sun 1300-2200Z. Unattended on Christmas Day. Rwy 33, +8-12' ditch 200' left of centerline, +8-10 ground 230' left of centerline paralleling south half of rwy. HIRL Rwy 04-22 and MIRL Rwy 15-33 preset on low ints, to increase ints and ACTIVATE REIL Rwy 22, Rwy 15 and Rwy 33 and MALS Rwy 04—CTAF. PAPI Rwy 15 and Rwy 33 on during day, at night ACTIVATE—CTAF.

WEATHER DATA SOURCES: AWOS-3 108.6 MZZ (765) 674-1317.**COMMUNICATIONS:** CTAF/UNICOM 122.7

① GRISSOM APP/DEP CON 121.05 (1200-0400Z) CLNC DEL 120.0

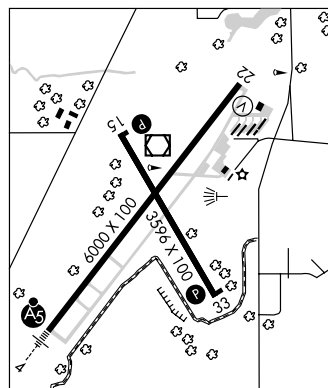
① CHICAGO CENTER APP/DEP CON 121.05 (0400-1200Z)

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

(L) VORW/DME 108.6 MZZ Chan 23 N40°29.60'

W85°40.76' at fld. 850/3W. AWOS-3.

ILS 111.7 I-MZZ Rwy 04. Unmonitored.

**MENTONE** (C92) 2 SW UTC-5(-4DT) N41°09.00' W86°03.75'

CHICAGO

860 FUEL 100LL NOTAM FILE HUF

RWY 18-36: H2521X40 (ASPH) S-10

RWY 18: Thld dsplcd 395'. Trees.

RWY 36: Trees.

AIRPORT REMARKS: Attended Mon-Fri 1300-2200Z, Sat-Sun irregularly.**COMMUNICATIONS:** CTAF 122.9**METROPOLITAN** N39°56.26' W86°03.01'. NOTAM FILE HUF.

ST LOUIS

NDB (MHW) 338 UMP at Indianapolis Metropolitan. AWOS-3.

L-27D

METTEL FLD (See CONNERSVILLE)

MICHIGAN CITY MUNI (MGC) 3 E UTC-6(-5DT) N41°42.20' W86°49.27'

CHICAGO

655 B FUEL 100LL, JET A NOTAM FILE HUF

L-281

RWY 02-20: H4100X75 (ASPH) MIRL 0.3% up S

IAP

RWY 02: PAPI(P2L)—GA 4.0° TCH 20'. Thld dsplcd 360'. Road.

RWY 20: REIL. PAPI(P2L). Thld dsplcd 183'. Trees.

AIRPORT REMARKS: Attended 1400-2300Z±. Birds and deer on and invof arpt. Apt lgts opr dusk-0400Z±. ACTIVATE MIRL Rwy 02-20 and REIL Rwy 20—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.7

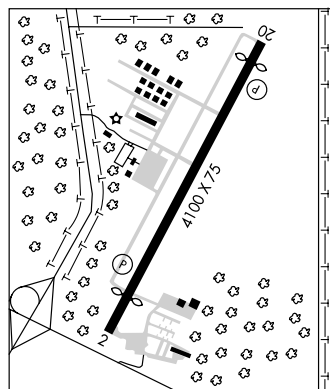
Ⓡ SOUTH BEND APP/DEP CON 118.55 (Sun-Fri 1030-0500Z±, Sat 1030-0445Z±), other times ctc Ⓡ CHICAGO CENTER APP/DEP CON 127.55

SOUTH BEND CLNC DEL 134.8

RADIO AIDS TO NAVIGATION: NOTAM FILE LAN.

GIPPER (H) VORTACW 115.4 GIJ Chan 101 N41°46.12'

W86°19.11' 260° 22.9 NM to fld. 804/00E. HIWAS.



MILLER (See BLUFFTON)

MISHA N41°42.34' W86°13.14' NOTAM FILE SBN.

CHICAGO

NDB (LOM) 341 SB 275° 4.4 NM to South Bend Rgnl. Unmonitored.

MISHAWAKA PILOTS CLUB (See ELKHART)

MISSISSINewa RESERVOIR LANDING AREA SPB (See PERU)

MONROE CO (See BLOOMINGTON)

MONTICELLO

WHITE CO (MCX) 3 S UTC-5(-4DT) N40°42.53' W86°46.01'

CHICAGO

676 B S4 FUEL 100LL, JET A NOTAM FILE HUF

L-27D

RWY 18-36: H4002X60 (ASPH) S-22 MIRL

IAP

RWY 18: REIL. VASI(V2L)—GA 3.0° TCH 21'. Road.

RWY 36: REIL. VASI(V2L)—GA 4.0° TCH 24'. Trees.

AIRPORT REMARKS: Attended 1300-2200Z±. Arpt unattended all major holidays. Fuel self svc avbl 24 hours. Frequent aerial application tfc during months of Jun, Jul, Aug. Deer invof arpt. Frequent glider tfc 1500Z±-SS daily during Apr-mid Nov. Twy edge marked with 2' yellow cylinder reflectors.

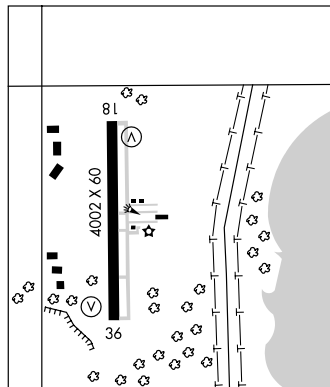
COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ CHICAGO CENTER APP/DEP CON 123.85

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

BOILER (H) VORTACW 115.1 BVT Chan 98 N40°33.37'

W87°04.16' 055° 16.6 NM to fld. 750/1E. HIWAS.



MORRISON FLIGHT PARK ULTRALIGHT (See LINTON)

MOUNT COMFORT (See INDIANAPOLIS)

MUNCIE**DELAWARE CO-JOHNSON FLD** (MIE) 3 NW UTC-5(-4DT) N40°14.55' W85°23.75'**CHICAGO**

937 B S2 FUEL 100LL, JET A OX 1, 3 TPA-1937(1000) Class IV, ARFF Index A H-5E, 10F, L-27E

NOTAM FILE MIE

IAP, AD

RWY 14-32: H6500X150 (ASPH-GRVD) S-80, D-100, DT-125 HIRL**RWY 14:** REIL. VASI(V4L)—GA 3.0° TCH 50'. Trees.**RWY 32:** MALSR. Trees.**RWY 02-20:** H5197X100 (ASPH-GRVD) S-80, D-100,

DT-125 MIRL

RWY 02: REIL. PAPI(P4L)—GA 3.0° TCH 27'. Thld dsplcd 196'. Tree.**RWY 20:** REIL. PAPI(P4L)—GA 3.0° TCH 45'. Tree.**LAND AND HOLD SHORT OPERATIONS**

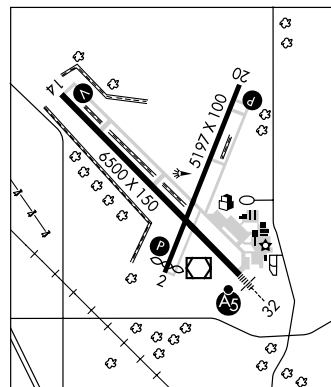
LANDING	HOLD SHORT POINT	DIST AVBL
RWY 14	02-20	4300
RWY 20	14-32	3500

RUNWAY DECLARED DISTANCE INFORMATION

RWY 02:	TORA-4998	TODA-4998	ASDA-4998	LDA-4998
RWY 14:	TORA-6500	TODA-6500	ASDA-6500	LDA-6500
RWY 20:	TORA-4998	TODA-4998	ASDA-4998	LDA-4998
RWY 32:	TORA-6500	TODA-6500	ASDA-6500	LDA-6500

AIRPORT REMARKS: Attended 1000-0400Z+. Parachute Jumping. Deer

on and invof arpt. Rwy 20 PAPI OTS indef. ACTIVATE MIRL Rwy 02-20; PAPI Rwy 02 and Rwy 20; REIL Rwy 14, Rwy 02 and Rwy 20 (with highest ints only); HIRL Rwy 14-32; MALSR Rwy 32; VASI Rwy 14-CTAF. Rwy 14-32 is preferred ldg rwy in calm winds. 48 hrs PPR for unscheduled air carrier ops with more than 30 passenger seats, call airport manager 765-747-5690. Rwy 14 REIL OTS indef.

WEATHER DATA SOURCES: ASOS 114.4 MIE (765) 288-9617. LAWRS.**COMMUNICATIONS:** CTAF 120.1 ATIS 133.25 UNICOM 122.95**MUNCIE RCO 122.1R 114.4T** (TERRE HAUTE RADIO)® **INDIANAPOLIS CENTER APP/DEP CON 120.65****MUNCIE TOWER 120.1** (1100-0300Z+) **GND CON 121.9****AIRSPACE:** CLASS D svc 1100-0300Z+ other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE MIE.**MUNCIE (L) VOR/DME 114.4** MIE Chan 91 N40°14.24' W85°23.64' at fld. 935/3W. ASOS.**BALLL NDB (LOM) 365** JN N40°10.85' W85°19.26' 320° 5.0 NM to fld.**ILS 109.1** I-JNK Rwy 32. Class IE. LOM BALLL NDB. ILS unmonitored when twr closed.**REESE** (7I2) 3 SE UTC-5(-4DT) N40°09.25' W85°19.00'**CHICAGO**

991 S2 FUEL 100LL, MOGAS TPA-1791(800) NOTAM FILE HUF

RWY 09-27: H2800X50 (ASPH) LIRL (NSTD)**RWY 09:** Crops. **RWY 27:** Road.

AIRPORT REMARKS: Attended dawn-dusk. Cracks on rwy. For LIRL Rwy 09-27 call 765-284-9611; 765-289-8753 or 765-286-9074. Rwy 09-27 NSTD LIRL, lghts are greater than 10' from rwy edge.

COMMUNICATIONS: CTAF/UNICOM 122.7**MUNCIE** N40°14.24' W85°23.64' NOTAM FILE MIE.**CHICAGO**(L) **VOR/DME 114.4** MIE Chan 91 at Delaware Co-Johnson Fld. 935/3W. ASOS.

L-27E

DME unusable 151°-287° byd 30 NM blo 3000'.

RCO 122.1R 114.4T (TERRE HAUTE RADIO)**NABB** N38°35.33' W85°38.16' NOTAM FILE HUF.**ST. LOUIS**(L) **VORTAC 112.4** ABB Chan 71 037° 13 NM to Madison Muni. 710/1E. HIWAS.

H-5E, 10F, L-27E

VOR portion unusable 178°-189° byd 20 NM.

DME portion unusable 250°-290° byd 20 NM blo 4000'.

RCO 122.1R 112.4T (TERRE HAUTE RADIO)

NAPPANEE MUNI (C03) 3 E UTC-5(-4DT) N41°26.77' W85°56.09'

CHICAGO

860 B S4 FUEL 100LL NOTAM FILE HUF

L-281

RWY 09-27: H3675X50 (ASPH) S-7 MIRL

IAP

RWY 09: Thld dsplcd 250'. Road.

RWY 27: Thld dsplcd 185'. Crops.

AIRPORT REMARKS: Attended 1300-2200Z±. First 670' Rwy 09 unlighted. ACTIVATE MIRL Rwy 09-27—CTAF.

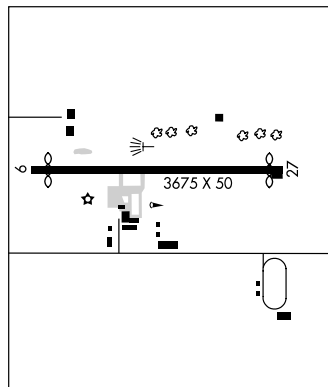
COMMUNICATIONS: CTAF/UNICOM 122.8

GOSHEN RCO 122.1R 113.7T (TERRE HAUTE RADIO)

Ⓡ **SOUTH BEND APP/DEP CON** 132.05 (Sun-Fri 1030-0500Z±, Sat 1030-0445Z±), other times ctc Ⓡ **CHICAGO CENTER APP/DEP CON** 135.9

RADIO AIDS TO NAVIGATION: NOTAM FILE GSH.

GOSHEN (H) VORTAC 113.7 GSH Chan 84 N41°31.51' W86°01.68' 138° 6.3 NM to fld. 850/00E.



NEW CASTLE-HENRY CO MUNI (UWL) 4 SE UTC-5(-4DT) N39°52.55' W85°19.59'

ST. LOUIS

1088 B S2 FUEL 100LL, JET A NOTAM FILE HUF

L-27E

RWY 09-27: H4002X65 (ASPH) S-6 MIRL 0.3% up E

IAP

RWY 09: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Thld dsplcd 89'. Road.

RWY 27: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Thld dsplcd 322'. Crops.

AIRPORT REMARKS: Attended 1300-2300Z±. For fuel when arpt unattended phone 765-332-2969. MIRL Rwy 09-27 preset on low ints; to increase ints and ACTIVATE PAPI Rwys 09 and 27; REIL Rwys 09 and 27—CTAF.

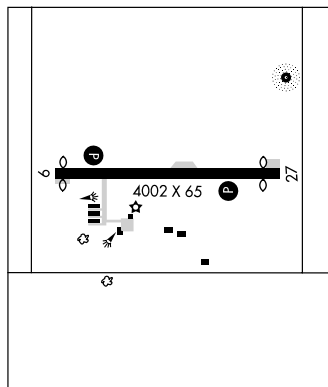
COMMUNICATIONS: CTAF/UNICOM 123.05

Ⓡ **INDIANAPOLIS APP/DEP CON** 135.45

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

RICHMOND (L) VORTAC 110.6 RID Chan 43 N39°45.30' W84°50.33' 291° 23.7 NM to fld. 1135/3W.

NDB (MHW) 385 UWL N39°52.80' W85°19.13' at fld. NDB unmonitored 0000-1300Z±.



NOBLESVILLE (I80) 4 SE UTC-5(-4DT) N40°00.21' W85°57.87'

CHICAGO

821 NOTAM FILE HUF

RWY 09-27: 3580X100 (TURF) LIRL

RWY 09: Thld dsplcd 465'. Road. Rgt tfc.

RWY 27: Thld dsplcd 110'. Tree.

AIRPORT REMARKS: Unattended. Rwy 09-27 no lights between rwy ends and dsplcd thlds. ACTIVATE LIRL Rwy 09-27—122.7.

COMMUNICATIONS: CTAF 122.9

NORTH VERNON (OVO) 2 NE UTC-5(-4DT) N39°02.72' W85°36.34'

ST. LOUIS

757 B S4 FUEL 100LL, JET A NOTAM FILE HUF

H-5E, 10F, L-27E

RWY 05-23: H5002X75 (ASPH) S-4 MIRL

IAP

RWY 05: PAPI(P4L)—GA 3.0° TCH 27'. Crops.

RWY 23: PAPI(P4L)—GA 3.0° TCH 27'. Road.

RWY 15-33: H2730X50 (ASPH) S-4

RWY 15: Road.

RWY 33: PAPI(P2L)—GA 3.5° TCH 27'. Trees.

AIRPORT REMARKS: Attended Mon-Fri 1300-2200Z, Sun

1300-2300Z. Fuel 24 hr self svc. Rwy 15-33 only avbl for use NW of intersection. Rwy 05-23 10' ASPH avbl outside painted boundary lines. ACTIVATE MIRL Rwy 05-23—CTAF. Ngt ops prohibited on Rwy 15-33.

WEATHER DATA SOURCES: AWOS-3 120.625 (812) 346-5041.

COMMUNICATIONS: CTAF/UNICOM 122.7

OSGOOD RCO 122.25 (TERRE HAUTE RADIO)

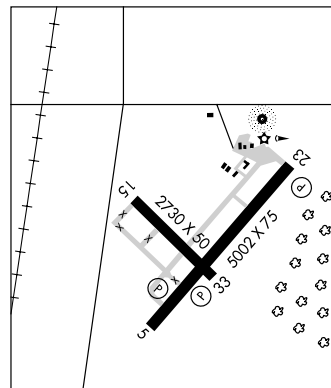
® INDIANAPOLIS CENTER APP/DEP CON 124.775

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

NABB (L) VORTAC 112.4 ABB Chan 71 N38°35.33'

W85°38.16' 002° 27.4 NM to fld. 710/1E. HIWAS.

NDB (MHW) 374 OVO N39°02.99' W85°36.07' at fld. NDB unusable byd 15 NM. NDB unmonitored 0000-1300Z.

**ORLEANS** (714) 1 E UTC-5(-4DT) N38°39.50' W86°26.58'

ST. LOUIS

655 NOTAM FILE HUF

L-27D

RWY 06-24: H3456X30 (ASPH) LIRL (NSTD)

RWY 06: Thld dspld 291'. Crops.

RWY 24: Thld dspld 200'. Bldg.

AIRPORT REMARKS: Unattended. Rwy shoulder spalling. Fence;

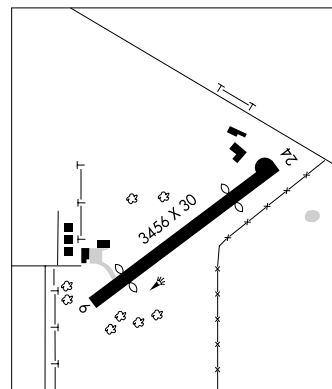
occasional brush; trees within 126' of rwy centerline. Also 10' pole and 15' trees within 100' Rwy 06 thld. Rwy 06-24 numbers are smaller than standard. ACTIVATE NSTD LIRL Rwy 06-24—CTAF. Rwy 06-24 NSTD LIRL; only two thld lgts each side of rwy. No lights between rwy end and dspld thld both ends.

COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE BMG.

HOOSIER (L) VORTAC 110.2 OOM Chan 39 N39°08.63'

W86°36.78' 167° 30.2 NM to fld. 845/2W.

**OSGOOD** N39°07.50' W85°18.88'

ST. LOUIS

RCO 122.25 (TERRE HAUTE RADIO)

L-27E

PAOLI MUNI (I42) 2 N UTC-5(-4DT) N38°35.00' W86°27.75'

ST. LOUIS

817 B S2 FUEL 100LL TPA-2417(1600) NOTAM FILE HUF

RWY 02-20: H2773X50 (ASPH) S-7 MIRL

RWY 02: PAPI(P2R)—GA 4.0° TCH 21'. Tree.

RWY 20: PAPI(P2L)—GA 4.0° TCH 25'. Trees.

AIRPORT REMARKS: Attended Mon-Sun 1300-2200Z. For service Mon, Tues, and after hrs, call 812-569-1811.

Snow removal winter months. ACTIVATE MIRL Rwy 02-20—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

PATOKA RESERVOIR LANDING AREA SPB (See FRENCH LICK)**PERRY CO MUNI** (See TELL CITY)

PERU

GRISSEM ARB (GUS) (KGUS) CIV/MIL 5 S UTC-5(-4DT) N40°38.89' W86°09.13' **CHICAGO**
 812 B S4 FUEL 100 NOTAM FILE HUF Not insp. **H-5E, 10F, L-27D**
RWY 05-23: H12501X200 (ASPH) PCN 67 R/B/W/T HIRL **DIAP, AD**
RWY 05: ALSF1. PAPI(P4L). **RWY 23:** ALSF1. PAPI(P4L).
RUNWAY DECLARED DISTANCE INFORMATION
RWY 05: TORA-12500 TODA-12500
RWY 23: TORA-12500 TODA-12500
MILITARY SERVICE: Rwy 05-23 apch lighting system NSTD configuration combined SSALR and ALSF-1. ALSF-1 used to determine TERPS minimums. **JASU** (A/M32A-86) (MD-3) (AM32-95) (MA-1A) **FUEL** Opr 1200-0300Z‡ Mon-Fri, unit training weekend hrs Sat 1230-2130Z‡, Sun 1200-2100Z‡. **J8. FLUID** SP PRESAIR LHGX
OIL O-133-148-156 JOAP
TRAN ALERT Opr 1200-0400Z‡ except holidays. No priority basis, svc avbl by prior arrangement. No fleet svc avbl.
AIRPORT REMARKS: Attended 1200-0400Z‡. CLOSED during federal holidays. Open to general aviation. Self serve 100LL and JET A. Bird Watch Condition I (Nov-Apr and Jun) indicates light bird activity. Phase II (May, Jul-Oct) indicates bird hazard heavy, bird activity normally associated with migratory season. Bird watch conditions avbl upon request and normally on ATIS. Uncontrolled vehicle on movement areas. Civilian pilot student training not authorized per joint use agreement. Civil acft not authorized on military ramp, rqr PPR. Expect delay when rwy ops suspended due to snow removal ops. PPR not required for acft ldg at civilian FBO, ctc Grissom twr. Acft using civilian FBO expect twr progressive taxi instructions. FBO located on east end of afld. During constant or heavy rain expect standing water up to 2/10th of an inch on rwy due to slow runoff. First 1000' Rwy 05-23 concrete. Approximately 300' from apch end Rwy 23 starts 1000' concrete, remaining rwy is asph. Afld lighting only avbl during hrs of ops (0700-2300 local).
MILITARY REMARKS: See FLIP AP/1 Supplementary Remarks. Expect delay when tactical arr/dep trng missions are in progress (heavy acft). **RSTD** PPR all acft utilizing Grissom military ramp 1200-0400Z‡, ctc DSN 388-2254, C765-688-2254. All AMOPS inbound passenger/cargo acft must ctc Command Post no later than 30 min prior to ldg. Ltd transportation for passenger. AFRC acft can expect restrictions during bird watch condition moderate or higher, ops require OG/CC approval. No local IFR/VFR tfc pattern activity and severe (tfc and ldg prohibited without OG/CC approval). **CAUTION** Hvy and fighter jet training/traffic NW GUS and within 10 NM GUS. Special Use Airspace directly overhead and to the NW (fighter jet tfc). Potential for reduced braking action-following significant rain first 2000'-3000' Rwy 23. **MISC** Acft ldg GUS using military ramp request PPR ctc AM base ops 765-688-2254 or PTD. Full wx svc avbl 1200-0400Z‡ DSN 388-2203/2204, C765-688-2203/2204. Remote briefing svc avbl 24 hrs from 15 Opr Wx Squadron DSN 576-9755, C618-256-9755. Afld wx maintained by AN/FMQ-19 Automated Observing System and augmented by human observer as required.
COMMUNICATIONS: SFA ATIS 108.45 270.8 (1200-0400Z‡) PTD 372.2
 (R) APP/DEP CON 121.05 379.3 (1200-0400Z‡)
 (R) CHICAGO CENTER APP/DEP CON 121.05 351.1 (0400-1200Z‡)
TOWER 133.7 290.45 (1200-0400Z‡) **GND CON** 128.425 275.8 **CLNC DEL** 120.0 324.3
ARW COMD POST (BRICKYARD) 252.1 321.0 **PMSV METRO** 344.6 (Full svc 1200-0400Z‡.)
AIRSPACE: CLASS D svc 1200-0400Z‡ other times CLASS G.
RADIO AIDS TO NAVIGATION: NOTAM FILE GUS. VHF/DF ctc App Con.
 (T) **VORTACW** 108.45 GUS Chan 21(Y) N40°38.69' W86°09.10' at fld. 810/2W. Unmonitored 0400-1200Z‡. No NOTAM MP Tue 1300-1500Z‡.
 VOR portion unusable:
 195°-220° byd 15 NM 318°-340°
ILS 109.5 I-GUS Rwy 05. No NOTAM MP Thu 1300-1500Z‡.
ILS 109.5 I-RSM Rwy 23. No NOTAM MP Thu 1300-1500Z‡.
ASR/PAR No NOTAM preventative maintenance schedule Mon 1200-1400Z‡. ASR apch svc 1200-0400Z‡ daily.
COMM/NAV/WEATHER REMARKS: Radar see Terminal FLIP for Radar Minima.

MISSISSINAWA RESERVOIR LANDING AREA SPB (43I) 6 SE UTC-5(-4DT) N40°42.22' **CHICAGO**
 W85°55.95'
 737 NOTAM FILE HUF
WATERWAY NW-SE: 14500X1000 (WATER)
SEAPLANE REMARKS: Unattended. Seaplane ops prohibited between SS and SR. Lake use permit required. Call 765-473-6528.
COMMUNICATIONS: CTAF 122.9

PERU MUNI (I76) 4 NW UTC-5(-4DT) N40°47.15' W86°08.79'

CHICAGO

779 B S2 FUEL 100LL, JET A NOTAM FILE HUF

L-270

RWY 01-19: H4400X75 (ASPH) S-10 MIRL 0.3% up N

IAP

RWY 01: REIL. PAPI(P2L)—GA 3.0° TCH 36'. Road.

RWY 19: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Road.

AIRPORT REMARKS: Attended Nov-Apr 1400-2300Z†, May-Oct 1400-0000Z†. ACTIVATE MIRL Rwy 01-19, PAPI and REIL Rwy 01 and 19—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

KOKOMO RCO 122.1R 109.8T (TERRE HAUTE RADIO)

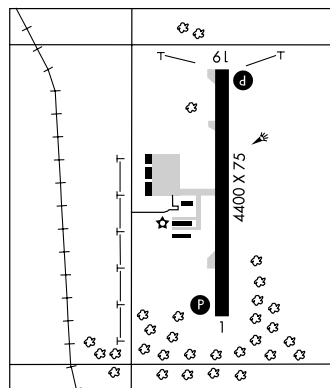
Ⓡ GRISSOM APP/DEP CON 121.05 (1200-0400Z†)

Ⓡ CHICAGO CENTER APP/DEP CON 121.05 (0400-1200Z†)

RADIO AIDS TO NAVIGATION: NOTAM FILE OKK.

KOKOMO (H) VORTAC 113.5 OKK Chan 82 N40°31.67'

W86°03.48' 345° 16 NM to fld. 830/00E.



PLYMOUTH MUNI (C65) 2 N UTC-5(-4DT) N41°21.91' W86°18.03'

CHICAGO

800 B FUEL 100LL, JET A NOTAM FILE HUF

L-281

RWY 10-28: H4400X60 (ASPH) S-25, D-40 MIRL

IAP

RWY 10: REIL. VASI(V2L)—GA 3.0° TCH 37'. Tree.

RWY 28: REIL. VASI(V4L)—GA 3.3° TCH 30'. Thld dsplcd 300'.

Road.

AIRPORT REMARKS: Attended Mon-Fri 1300-2200Z†, Sat 1300-2100Z†, Sun 1500-1900Z†. Birds on and invof arpt. Snow removal ops during winter months; equipment operators will monitor CTAF when twr clsd. MIRL Rwy 10-28 preset low ints; to increase ints and ACTIVATE REIL and VASI Rwy 10 and Rwy 28—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

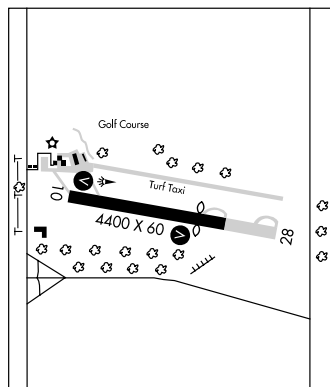
KNOX RCO 122.1R 115.6T (TERRE HAUTE RADIO)

Ⓡ SOUTH BEND APP/DEP CON 132.05 (Sun-Fri 1030-0500Z†, Sat 1030-0445Z†), other times ctc Ⓡ CHICAGO CENTER APP/DEP CON 135.9

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

KNOX (H) VOR/DME 115.6 OXI Chan 103 N41°19.32'

W86°38.96' 081° 16 NM to fld. 690/00E.



PNTHR N39°46.61' W85°07.79' NOTAM FILE HUF.

NDB (LOM) 227 SQ 185° 4.7 NM to Mettel Fld.

POCKET CITY N37°55.70' W87°45.74' NOTAM FILE HUF.

ST LOUIS

(H) VORTACW 113.3 PXV Chan 80 056° 12.8 NM to Evansville Rgnl. 384/3E. HIWAS.

H-5E, L-161

DME unusable beyond 30 NM below 2600'.

POPE FLD (See GREENFIELD)

PORTER CO MUNI (See VALPARAISO)

PORTLAND MUNI (PLD) 1 NW UTC-5(-4DT) N40°27.10' W84°59.34'

DETROIT

925 B S2 FUEL 100LL, JET A NOTAM FILE HUF

L-27E

RWY 09-27: H4002X75 (ASPH) S-12.5 MIRL 0.3% up E

IAP

RWY 09: REIL. PAPI (P2L)—GA 3.0° TCH 24'. Trees.

RWY 27: REIL. PAPI (P2L)—GA 3.0° TCH 24'. Antenna.

AIRPORT REMARKS: Attended Mon-Sat 1300-0000Z†, Sun 1400-0000Z†. MIRL Rwy 09-27 preset low ints, increase ints and ACTIVATE REIL Rwys 09 and 27—CTAF. PAPI Rwys 09 and 27 opr 24 hr. REIL.

WEATHER DATA SOURCES: AWOS-3 118.45 (260) 726-7882.

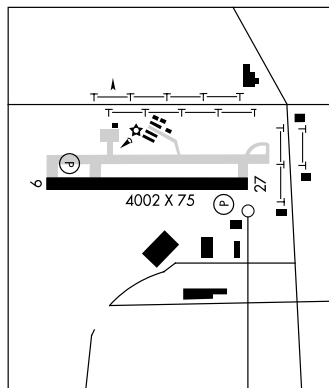
COMMUNICATIONS: CTAF/UNICOM 122.8

® **FORT WAYNE APP/DEP CON** 132.15 (SE/NE of active rwy) 127.2 (SW/NW of active rwy)

RADIO AIDS TO NAVIGATION: NOTAM FILE FWA.

FORT WAYNE (H) VORTACW 117.8 FWA Chan 125 N40°58.74' W85°11.28' 164° 32.9 NM to fld. 793/00E.

COMM/NAV/WEATHER REMARKS: APP CON sectorization based upon Fort Wayne rwy usage.



POSEYVILLE

RALPH E. KOCH (61Y) 2 N UTC-6(-5DT) N38°12.46' W87°46.46'

ST. LOUIS

450 FUEL 100LL NOTAM FILE HUF

RWY 04-22: 2960X100 (TURF)

RWY 22: Thld dsplcd 922'. Road.

RWY 18U-36U: 1125X100 (TURF)

RWY 18U: Thld dsplcd 300'. Road. RWY 36U: Thld dsplcd 200'. Crops.

AIRPORT REMARKS: Attended on call. For attendant call 812-874-3315. Rwy 18U-36U CLOSED indef. Rwy 04-22 marked with white collapsible metal triangles; dsplcd thld marked with white gravel rocks outboard of rwy. Rwy 18U-36U marked with white collapsible metal triangles; dsplcd thlds marked with white gravel rocks outboard of rwy.

COMMUNICATIONS: CTAF/UNICOM 122.7

POST-AIR (See INDIANAPOLIS)

PULLY N39°37.74' W86°25.10' NOTAM FILE IND.

ST. LOUIS

NDB (LOM) 266 IN 049° 7.8 NM to Indianapolis Intl.

PURDUE UNIVERSITY (See LAFAYETTE)

PUTNAM CO (See GREENCASTLE)

RALPH E. KOCH (See POSEYVILLE)

RANDOLPH CO (See WINCHESTER)

REESE (See MUNCIE)

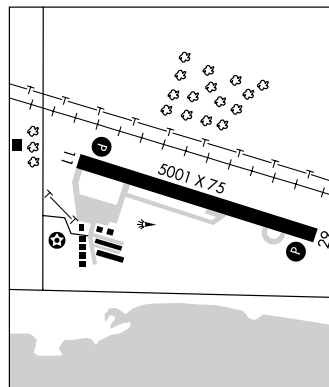
ROCHESTER**FULTON CO** (RCR) 2 E UTC-5(-4DT) N41°03.93' W86°10.90'790 B **FUEL** 100LL, JET A NOTAM FILE HUF**RWY 11-29:** H5001X75 (ASPH-GRVD) S-9 MIRL**RWY 11:** REIL. PAPI(P2L)—GA 4.0° TCH 28'. Tree.**RWY 29:** REIL. PAPI(P2L)—GA 4.0° TCH 28'. Tree.**AIRPORT REMARKS:** Attended 1300-2300Z†. Acft landing Rwy 11 must back taxi. ACTIVATE MIRL Rwy 11-29, PAPI Rwy 11 and Rwy 29, REIL Rwy 11 and Rwy 29, and rotating bcn—CTAF.**WEATHER DATA SOURCES:** AWOS-3 118.775 (574) 223-3560.**COMMUNICATIONS:** CTAF/UNICOM 122.7

(R) **SOUTH BEND APP/DEP CON** 132.05 (Sun-Fri 1030-0500Z†, Sat 1030-0445Z†), other times ctc
 (R) **CHICAGO CENTER APP/DEP CON** 119.85

RADIO AIDS TO NAVIGATION: NOTAM FILE GUS.

GRISSEM (T) VORTACW 108.45 GUS Chan 21(Y) N40°38.69' W86°09.10' 359° 25.3 NM to fld. 810/2W. VORTAC unmonitored 0400-1200Z†.

CHICAGO
 H-5E, 10F, L-27D
 IAP

**SALEM MUNI** (I83) 2 W UTC-5(-4DT) N38°36.12' W86°08.40'**ST. LOUIS**822 B S2 **FUEL** 100LL NOTAM FILE HUF**RWY 10-28:** H2738X50 (ASPH) S-7 MIRL**RWY 10:** REIL. PAPI(P2L)—GA 4.0° TCH 20'. Trees.**RWY 28:** REIL. Thld dsplcd 238'. Bldg.

AIRPORT REMARKS: Attended Mon-Fri 2130Z†-dusk, Sat-Sun irregularly. Fuel avbl 24 hrs with credit card. Rwy 10 REIL OTS indef. MIRL Rwy 10-28 preset low in ints; to increase ints ACTIVATE—CTAF.

COMMUNICATIONS: CTAF/UNICOM 123.0**SCOTTSBURG** (3R8) 3 SW UTC-5(-4DT) N38°39.44' W85°47.42'**ST. LOUIS**600 S2 **FUEL** 100LL NOTAM FILE HUF Not insp.**RWY 02-20:** 2844X100 (TURF)**RWY 02:** Thld dsplcd 200'. Trees.**RWY 20:** Thld dsplcd 380'. Trees.

AIRPORT REMARKS: Attended irregularly. Arpt CLOSED Dec 1 to Apr 1. Rwy 02-20 marked by orange traffic cones. Trees all quadrants.

COMMUNICATIONS: CTAF 122.9**SEDLY** N41°27.07' W86°52.65' NOTAM FILE HUF.**CHICAGO**

NDB (MHW/LOM) 212 VP 274° 5.8 NM to Porter Co Muni. Unmonitored.

L-281

SEYMOUR**FREEMAN MUNI** (SER) 2 SW UTC-5(-4DT) N38°55.48' W85°54.50'

ST. LOUIS

H-5E, 10F, L-27D
IAP

583 B S2 FUEL 100LL, JET A NOTAM FILE HUF

RWY 14-32: H5502X100 (ASPH-GRVD) S-20, D-35, DT-50 MIRL

RWY 14: REIL. PAPI(P2L)—GA 3.0° TCH 21'. Crops.

RWY 32: REIL. PAPI(P2L)—GA 3.0° TCH 30'. Crops.

RWY 05-23: H5500X100 (ASPH-GRVD) S-20, D-35, DT-50 MIRL

RWY 05: ODALS. REIL. PAPI(2PL)—GA 3.0° TCH 29'.

RWY 23: ODALS. REIL. PAPI(P2L)—GA 3.0° TCH 28'.

RWY 18U-36U: 1200X100(TURF)

RWY 18U: Thld dspcd 200'.

RWY 36U: Thld dspcd 400'. Bldg. Rgt tfc.

RWY 09U-27U: 1000X100 (TURF)

RWY 09U: Thld dspcd 120'. Bldg.

RWY 27U: Thld dspcd 120'. P-line.

AIRPORT REMARKS: Attended 1300Z±-dusk. Radio control airplanes op on and invof arpt daily from Apr-Oct. Rwy 14-32 crops 210' both sides of centerline—entire length. Rwy 18U-36U cracking and loose gravel. Rwy 36U end unmarked. Rwy 27U crops 200' and 36' high power line 582' from east end. MIRL Rwy 05-23 and Rwy 14-32 preset on off; to ACTIVATE and increase ints REIL Rwy 05, Rwy 23, Rwy 14 and Rwy 32, ODALS Rwy 05 and Rwy 23, PAPI Rwy 05 and Rwy 23—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.425 (812)522-4244, 1(888)782-3222.**COMMUNICATIONS:** CTAF/UNICOM 122.8

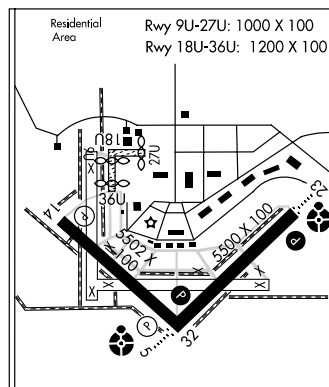
⑧ INDIANAPOLIS CENTER APP/DEP CON 124.775

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

NABB (L) VORTAC 112.4 ABB Chan 71 N38°35.33' W85°38.16' 327° 23.8 NM to fld. 710/1E. HIWAS.

CAPTAIN NDB (MHW) 308 EQZ N38°52.05' W85°58.38' 043° 4.6 NM to fld. NDB unmonitored.

ILS 108.5 I-SER Rwy 05. LOC only. LOC unusable byd 30° right of course. LOC unmonitored.

**SHAWNEE FLD** (See BLOOMFIELD)**SHELBYVILLE MUNI** (GEZ) 4 NW UTC-5(-4DT) N39°34.99' W85°48.29'

ST. LOUIS

H-5E, 10F, L-27D
IAP

803 B S4 FUEL 100LL, JET A NOTAM FILE GEZ

RWY 01-19: H5000X100 (ASPH-GRVD) S-30, D-40 MIRL

RWY 01: REIL. PAPI(P2L)—GA 3.0° TCH 25'. Trees.

RWY 19: REIL. VASI(V4L)—GA 3.0° TCH 38'. Trees.

RWY 09-27: 2671X190 (TURF) 0.4% up E

RWY 09: Thld dspcd 446'. Road.

RWY 27: Thld dspcd 289'. Building.

AIRPORT REMARKS: Attended 1300Z±-sunset. Attended irregularly on Christmas, New Years; Easter and Thanksgiving. National Guard helipad and helicopter facility lctd W of arpt. Helicopter tfc all hrs. MIRL Rwy 01-19 preset on low ints; to increase ints and ACTIVATE PAPI Rwy 01 and VASI Rwy 19—CTAF. Rwy 27 begins at west side of Twy A; grass line marks rwy edges. Rwy 09-27 dspld thlds marked with yellow cones.

WEATHER DATA SOURCES: ASOS 121.55 (317)398-0246. HIWAS 112.0 SHB.

COMMUNICATIONS: CTAF/UNICOM 122.8

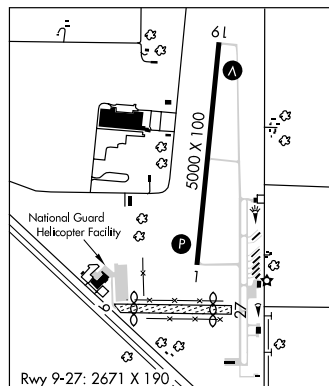
RCO 122.1R 112.0T (TERRE HAUTE RADIO)

⑧ INDIANAPOLIS APP/DEP CON 127.15

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

(L) VORTAC 112.0 SHB Chan 57 N39°37.95' W85°49.46' 162° 3.1 NM to fld. 810/1E. HIWAS.

VOR portion unusable: Byd 25 NM blo 3000' 180°-277° byd 14 NM blo 6000'



SHERIDAN (514) 3 N UTC-5(-4DT) N40°10.66' W86°13.04'

936 B S4 FUEL 100LL NOTAM FILE HUF

RWY 05-23: H3760X50 (ASPH) LIRL (NSTD)

RWY 05: Thld dsplcd 650'. Crops.

RWY 23: TRCV (TRIL) Crops.

RWY 09-27: 3590X88 (TURF)

RWY 09: Building.

RWY 27: Thld dsplcd 250'. Crops.

AIRPORT REMARKS: Attended 1300Z±-dusk. After hours assistance 337-758-5471 or 317-501-4521. During winter months call arpt manager to verify rwy conditions—317-758-4161. ACTIVATE NSTD LIRL Rwy 05-23—CTAF. Rwy 05-23 NSTD LIRL; Rwy 23 NSTD thld lgts; only two lights.

COMMUNICATIONS: CTAF/UNICOM 123.075

KOKOMO RCO 122.1R 109.8T (TERRE HAUTE RADIO)

® INDIANAPOLIS APP/DEP CON 124.65

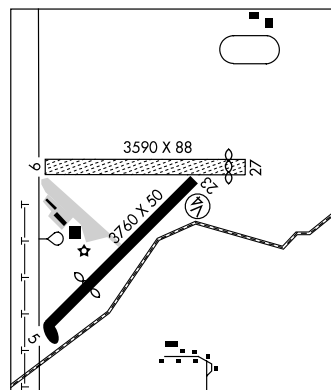
RADIO AIDS TO NAVIGATION: NOTAM FILE OKK.

KOKOMO (H) VORTAC 113.5 OKK Chan 82 N40°31.67' W86°03.48' 199° 22.2 NM to fld. 830/00E.

CHICAGO

L-27D

IAP



SKY KING (See TERRE HAUTE)

SKYLANE (See EVANSVILLE)

SMITH FLD (See FT WAYNE)

SOUTH BEND RGNL (SBN) 3 NW UTC-5(-4DT) N41°42.49' W86°19.04'

799 B S4 FUEL 100LL, JET A TPA-1799(1000) Class I, ARFF Index B

CHICAGO

H-5E, 10F, L-281

IAP, AD

NOTAM FILE SBN

RWY 09R-27L: H8414X150 (ASPH-GRVD) S-100, D-175, ST-175, DT-300 HIRL

RWY 09R: MALSF. PAPI(P4L)—GA 3.0° TCH 53'. Tree. 0.5% down.

RWY 27L: MALSR. PAPI(P4L)—GA 3.0° TCH 51'. Tree.

RWY 18-36: H7100X150 (ASPH-GRVD) S-100, D-175, ST-175, DT-300 MIRL 0.5% up S

RWY 18: PAPI(P4L)—GA 3.0° TCH 49'. Tree.

RWY 36: PAPI(P4L)—GA 3.0° TCH 50'. Tree.

RWY 09L-27R: H4300X75 (ASPH) D-60 MIRL S-45

RWY 09L: PAPI(P2L)—GA 3.0° TCH 40'. Tree.

RWY 27R: PAPI(P2L)—GA 3.0° TCH 38'. Tree.

LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 27L	18-36	3950

RUNWAY DECLARED DISTANCE INFORMATION

RWY 09L: TORA-4300 TODA-4300 ASDA-4300 LDA-4300

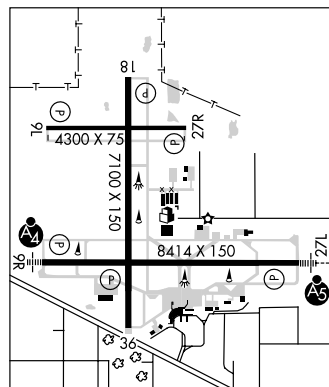
RWY 09R: TORA-8414 TODA-8414 ASDA-8414 LDA-8414

RWY 18: TORA-7100 TODA-7100 ASDA-7100 LDA-7100

RWY 27L: TORA-8414 TODA-8414 ASDA-8414 LDA-8414

RWY 27R: TORA-4300 TODA-4300 ASDA-4300 LDA-4300

RWY 36: TORA-7100 TODA-7100 ASDA-7100 LDA-7100

**AIRPORT REMARKS:** Attended continuously. Birds on and in/ov arpt. High

tension wires in vicinity of 27R apch. Be alert during rgt base to

Rwy 27R. 92' high tension wires 2160' from Rwy 27R rwy end,

394' rgt of rwy centerline. Apch slope 21:1. Line-of-sight between

intersecting rwys is restricted. Air carrier ramp clsd to General

Aviation acft ops. Access to air carrier ramp area restricted to

scheduled commercial acft and unscheduled commercial acft

(diversions/charters) using large acft. Authorized ground equipment, ramp personnel and all General Aviation

acft parking will be on FBO ramp. Rwy 09R-27L center 130' grooved. Rwy 18-36 grooved south of Rwy

09R-27L. Rwy 09L-27R weight restricted 45,000 single and 60,000 dual. Rwy 09L-27R and Twys J/J1/J2

and T not avbl to air carrier acft with more than 9 passenger seats. Twy B between B1 and B2 Twy restricted

to acft larger than B757 or wingspan less than 125' and greater. When twr clsd HIRL Rwy 09R-27L preset

med ints and Rwy 18-36 preset low ints, ACTIVATE MALSF Rwy 09R; MALSR Rwy 27L—CTAF.

WEATHER DATA SOURCES: ASOS (574) 233-2716.**COMMUNICATIONS:** CTAF 118.9 ATIS 118.15 UNICOM 122.95**SOUTH BEND RCO** 122.6 (TERRE HAUTE RADIO)

Ⓡ **SOUTH BEND APP/DEP CON** 118.55 (270-099°), 132.05 124.1 (100-269°) (Sun-Fri 1030-0500Z±, Sat 1030-0445Z±), other times ctc Ⓡ **CHICAGO CENTER APP/DEP CON** 118.55

SOUTH BEND TOWER 118.9 (Sun-Fri 1030-0500Z±, Sat 1030-0445Z±), **GND CON** 121.7 **CLNC DEL** 121.9**AIRSPACE:** CLASS C svc (Sun-Fri 1030-0500Z±, Sat 1030-0445Z±) ctc **APP CON** other times CLASS E.**RADIO AIDS TO NAVIGATION:** NOTAM FILE LAN.**GIPPER (H) VORTACW** 115.4 **GIJ** Chan 101 N41°46.12' W86°19.11' 179° 3.6 NM to fld. 804/00E. HIWAS.**MISHA NDB (LOM)** 341 **SB** N41°42.34' W86°13.14' 275° 4.4 NM to fld. Unmonitored. NOTAM FILE SBN.**ILS** 109.3 **I-SBN** Rwy 27L. **LOM MISHA NDB.** LOC and LOM unmonitored when twr clsd.**ILS** 109.3 **I-UXW** Rwy 09R. **ILS** unmonitored when twr clsd.**SOUTH BEND** N41°42.25' W86°18.83'**RCO** 122.6 (TERRE HAUTE RADIO)

CHICAGO

L-281

STARKE CO (See KNOX)

SULLIVAN CO (SIV) 3 NW UTC-5(-4DT) N39°06.88' W87°26.90'

ST. LOUIS

540 B FUEL 100LL TPA-1340(800) NOTAM FILE HUF

L-27D

RWY 18-36: H4360X75 (ASPH-RFSC) S-27, D-35 MIRL

IAP

RWY 18: REIL. VASI(V2L)-GA 3.0° TCH 21'. Crops.

RWY 36: REIL. VASI(V2L)-GA 3.0° TCH 21'. Crops.

AIRPORT REMARKS: Attended 1300Z±-dusk. Unattended Thanksgiving; Christmas and New Years Day. Partial twy lghts, only on N end. Moored balloon, 2 miles east of arpt at 1600' and blo. ACTIVATE MIRL Rwy 18-36 and REIL Rwy 18 and Rwy 36-CTAF. Rotating bcn and VASI Rwy 18 and Rwy 36 on continuously.

COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ HULMAN APP/DEP CON 119.25 (1100-0300Z±)

Ⓡ INDIANAPOLIS CENTER APP/DEP CON 132.2 (0300-1100Z±)

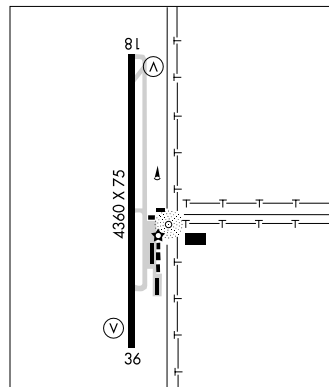
RADIO AIDS TO NAVIGATION: NOTAM FILE RSV.

ROBINSON (T) VORW/DME 108.4 RSV Chan 21 N39°01.06'

W87°38.93' 056° 11 NM to fld. 452/2E.

VOR unmonitored 0000-1300Z±.

NDB (MHW) 326 SIV N39°06.81' W87°26.81' at fld. NOTAM FILE HUF.



TELL CITY N38°00.85' W86°41.41' NOTAM FILE HUF.

ST. LOUIS

NDB (MHW) 206 TEL at Perry Co Muni. NDB unmonitored 0600-1200Z±.

L-27D

TELL CITY

PERRY CO MUNI (TEL) 6 NE UTC-6(-5DT) N38°01.13' W86°41.55'

ST. LOUIS

660 B FUEL 100LL, JET A NOTAM FILE HUF

L-27D

RWY 13-31: H4400X75 (ASPH) S-12 MIRL 1.2% up SE

IAP

RWY 13: REIL. PAPI(P4R)-GA 3.0° TCH 29'. Trees.

RWY 31: REIL. PAPI(P4R)-GA 3.25° TCH 28'. Trees.

AIRPORT REMARKS: Unattended. Fuel self serve. ACTIVATE MIRL Rwy 13-31 and REIL Rwy 13 and 31-CTAF. Rwy 13-31 PAPI on continuously.

COMMUNICATIONS: CTAF/UNICOM 122.7

Ⓡ EVANSVILLE APP/DEP CON 126.4 (1200-0500Z±)

Ⓡ INDIANAPOLIS CENTER APP/DEP CON 128.3 (0500-1200Z±)

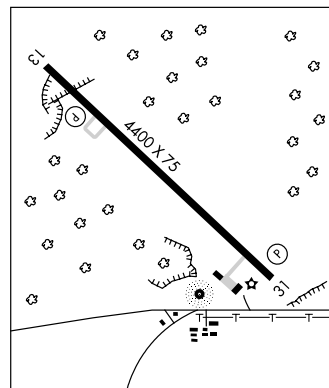
RADIO AIDS TO NAVIGATION: NOTAM FILE HNB.

HUNTINGBURG (T) VORW/DME 109.2 HNB Chan 29 N38°15.03'

W86°57.37' 138° 18.7 NM to fld. 517/00E.

TELL CITY NDB (MHW) 206 TEL N38°00.85' W86°41.41' at fld.

NOTAM FILE HUF. NDB unmonitored 0600-1200Z±.



TERRE HAUTE N39°29.34' W87°14.94' NOTAM FILE HUF

ST LOUIS

(H) VORTACW 115.3 TTH Chan 100 228° 3.5 NM to Terre Haute Intl-Hulman Fld. 606/2E.

H-5E, L-27D

HIWAS.

DME unusable byd 27 NM blo 3500'.

TERRE HAUTE**SKY KING** (313) 5 N UTC-5(-4DT) N39°32.87' W87°22.64'

ST. LOUIS

496 B S4 **FUEL** 100LL NOTAM FILE HUF

L-27D

RWY: 08-26: H3557X50 (ASPH) LIRL (NSTD)

IAP

RWY 08: Trees. **RWY 26:** Thld dspcd 812'. Trees.**RWY 18-36:** H1978X50 (ASPH) LIRL (NSTD)**RWY 18:** Thld dspcd 50'. Crops.**RWY 36:** Thld dspcd 289'. Trees.

AIRPORT REMARKS: Attended 1200Z†-dusk. CAUTION: 50' elevation drop 60' from thld Rwy 08. ACTIVATE rotating bcn; NSTD LIRL
 Rwys 08-26 and 18-36—CTAF. Rwy 08-26 and Rwy 18-36 NSTD LIRL, lgts are 16' from rwy edge.

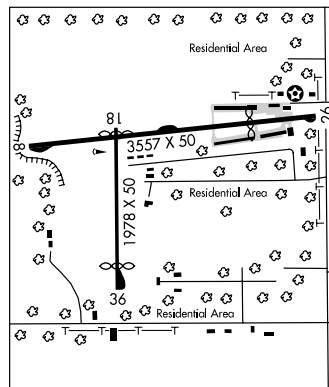
WEATHER DATA SOURCES: HIWAS 115.3 TTH.**COMMUNICATIONS:** CTAF/UNICOM 122.8

Ⓡ **HULMAN APP/DEP CON** 125.45 118.3 (1100-0300Z†)

Ⓡ **INDIANAPOLIS CENTER APP/DEP CON** 132.2 (0300-1100Z†)

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

TERRE HAUTE (H) VORTACW 115.3 TTH Chan 100 N39°29.34' W87°14.94' 299° 6.9 NM to fld. 606/2E. **HIWAS.**



TERRE HAUTE INTL—HULMAN FLD (HUF) 5 E UTC-5(-4DT) N39°27.09' W87°18.46'

ST. LOUIS

589 B S4 FUEL 100LL, JET A

ARFF Index—See Remarks NOTAM FILE HUF

H-5E, L-27D

RWY 05-23: H9020X150 (ASPH-GRVD)

S-75, D-200, ST-175, DT-300, DDT-600 HIRL

IAP, AD

RWY 05: MALSR. PAPI(P4L)—GA 3.0° TCH 39'. Stack.

RWY 23: REIL. VASI(V4L)—GA 3.0° TCH 31'. Tree.

RWY 14-32: H7200X150 (ASPH-CONC-GRVD) S-75, D-200,

ST-175, DT-300 HIRL 0.3% up SE

RWY 14: REIL. PAPI(P4L)—GA 2.75° TCH 55'. Tree.

RWY 32: REIL. PAPI(P4L)—GA 3.0° TCH 50'.

RWY 18-36: H4000X150 (ASPH-CONC) S-75, D-140, ST-139,

DT-190 MIRL

RWY 18: REIL. PAPI(P2L)—GA 3.0° TCH 54'. Trees.

RWY 36: REIL. Tree.

LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 05	18-36	4650
RWY 18	05-23	3300
RWY 23	18-36	3450
RWY 32	05-23	4237
RWY 36	14-32	3200

RUNWAY DECLARED DISTANCE INFORMATION

RWY 05:	TORA-9020	TODA-9020	ASDA-9020	LDA-9020
RWY 14:	TORA-7200	TODA-7200	ASDA-7200	LDA-7200
RWY 18:	TORA-4001	TODA-4001	ASDA-4001	LDA-4001
RWY 23:	TORA-9020	TODA-9020	ASDA-9020	LDA-9020
RWY 32:	TORA-7200	TODA-7200	ASDA-7200	LDA-7200
RWY 36:	TORA-4001	TODA-4001	ASDA-4001	LDA-4001

AIRPORT REMARKS: Attended continuously. Deer and birds on and in/ovf arpt. Class IV, ARFF index A. ARFF Index B avbl on req with PPR, cto airport manager 812-877-2252. Rwy 18-36 remains CLOSED

to air carrier ops with more than 30 passenger seats. Rwy 05-23 1000' paved blast pad SW end and 1325' paved blast pad NE end; Rwy 32 400' by 150' blast pad; not avbl for ASDA. Rwy 18 and 14 apch ends are closely aligned. Verify correct rwy and compass heading prior to departure. Ldg fee for civilian acft over 10,000 lbs. U.S. Customs user fee arpt. Customs avbl 24 hr notice 317-248-4060.

WEATHER DATA SOURCES: ASOS 127.5 (812) 877-9136. HIWAS 115.3 TTH.

COMMUNICATIONS: ATIS 127.5 UNICOM 122.95

TERRE HAUTE RCO 122.65 (TERRE HAUTE RADIO)

® APP/DEP CON 125.45 119.8 (1100-0300Z‡)

® INDIANAPOLIS CENTER APP/DEP CON 132.2 (0300-1100Z‡)

TOWER 118.3 GND CON 121.6

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

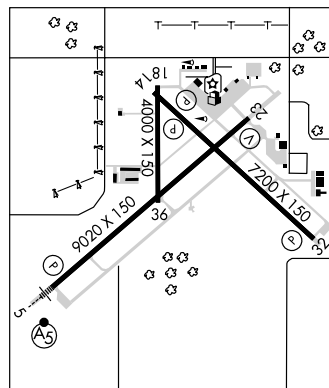
TERRE HAUTE (H) VORTACW 115.3 TTH Chan 100 N39°29.34' W87°14.94' 228° 3.5 NM to fld. 606/2E.

HIWAS

YINNO NDB (MHW/LOM) 245 HU N39°23.27' W87°23.86' 050° 5.7 NM to fld. Umonitored when twr clsd.

ILS 109.7 I-HUF Rwy 05. Class IE. LOM YINNO NDB. LOM unmonitored when twr clsd. LOC BC unusable inbound 1.3 NM from thld to thld.

ASR

**TRI-STATE STEUBEN CO** (See ANGOLA)**UNION MILLS**

FLYING U RANCH (4C1) 3 SW UTC-6(-5DT) N41°27.24' W86°47.53'

CHICAGO

740 FUEL 100LL NOTAM FILE HUF

RWY 18-36: 2745X100 (TURF)

RWY 18: Thld dsplcd 400'. Crops.

RWY 36: Thld dsplcd 470'. Bldg.

AIRPORT REMARKS: Attended dalgt hrs. Deer and birds on and in/ovf arpt. Rwy 18-36 edges marked with tires painted white, dsplcd thlds marked with red highway cones and white boards. Unicom not regularly monitored.

COMMUNICATIONS: CTA/UNICOM 122.8

VALPARAISO**PORTER CO MUNI**

(VPZ) 1SE UTC-6(-5DT) N41°27.24' W87°00.43'

770 B S4 FUEL 100LL, JET A TPA-1770(1000) Class IV, ARFF Index A

NOTAM FILE VPZ

RWY 09-27: H7001X150 (ASPH-GRVD) D-250, ST-175, DT-375 HIRL**RWY 09:** REIL. VASI(V4L)—GA 3.0° TCH 45'. Thld displcd 500'.

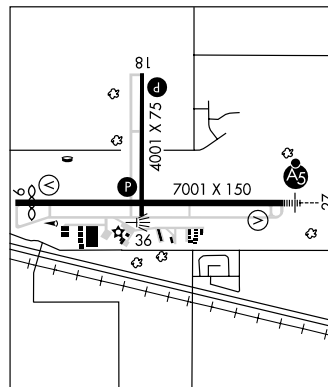
Trees.

RWY 27: MALSR. VASI(V4L)—GA 3.0° TCH 51'.**RWY 18-36:** H4001X75 (ASPH-GRVD) S-30, D-45 MIRL**RWY 18:** REIL. PAPI(P2L)—GA 3.0° TCH 24'. Trees.**RWY 36:** REIL. PAPI(P2L)—GA 3.0° TCH 35'. Trees.**RUNWAY DECLARED DISTANCE INFORMATION****RWY 09:** TORA-7000 TODA-7000 ASDA-7000 LDA-6500**RWY 27:** TORA-6500 TODA-6500 ASDA-6500 LDA-6500

AIRPORT REMARKS: Attended Mon-Fri 1200-0400Z†, Sat-Sun 1300-0100Z†. Birds and deer on and in/ovf arpt. CLOSED to scheduled air carrier ops with greater than 9 passenger seats and unscheduled air carrier ops greater than 30 seats, 90-day PPR, call arpt manager 219-462-6508. HIRL Rwy 09-27 and MIRL Rwy 18-36 preset on low ints dusk-0500Z†; to increase ints after 0500Z† and ACTIVATE MALSR Rwy 27; REIL Rwy 09; PAPI and REIL Rwy 18 and Rwy 36 —CTAF. VASI Rwy 09 and Rwy 27 ops 24 hours. Rwsy 09-27 and 18-36 parallel twy have green centerline reflectors.

WEATHER DATA SOURCES: ASOS 125.875 (219) 531-1770.**COMMUNICATIONS:** CTAF/UNICOM 122.725**CROWNPOINT RCO** 123.65 (TERRE HAUTE RADIO)

Ⓡ **SOUTH BEND APP/DEP CON** 132.05 (Sun-Fri 1030-0500Z†, Sat 1030-0445Z†), other times ctc Ⓡ **CHICAGO CENTER**
APP/DEP CON 135.9

SOUTH BEND CLNC DEL 120.525**RADIO AIDS TO NAVIGATION:** NOTAM FILE HUF.**KNOX (H) VOR/DME** 115.6 OXI Chan 103 N41°19.32' W86°38.96' 296° 18 NM to fld. 690/00E.**SEDLY NDB (MHW/LOM)** 212 VP N41°27.07' W86°52.65' 274° 5.8 NM to fld. Unmonitored.**ILS** 109.7 I-VPZ Rwy 27 Class IE. LOM SEDLY NDB.**VEVAY****ROBINSON**

(8I1) 7 SW UTC-5(-4DT) N38°41.67' W85°11.90'

ST. LOUIS

484 S2 TPA-1284(800) NOTAM FILE HUF

RWY 09-27: 1670X50 (TURF)**RWY 09:** Thld displcd 150'. Road. **RWY 27:** Trees

AIRPORT REMARKS: Attended irregularly. Rwy 09-27 rough and rolling turf. Rwy 09-27 thlds marked with white tires; boundary marked with white tires and yellow oil jugs.

COMMUNICATIONS: CTAF 122.9**VICCI** N38°07.60' W87°26.44'. NOTAM FILE EVV.

ST LOUIS

NDB (LOM) 219 EV 219° 6.8 NM to Evansville Dress Rgnl.**VIDEO** N40°04.17' W85°30.64'. NOTAM FILE AID.

CHICAGO

NDB (MHW/LOM) 371 AI 299° 5.3 NM to Anderson Muni-Darlington Fld.

L-27E

Unmonitored when Anderson Twr clsd.

VINCENNES N38°41.45' W87°33.35'. NOTAM FILE STL.

ST. LOUIS

NDB (MHW) 251 OEA 332° 5.0 NM to Lawrenceville-Vincennes Intl. Unmonitored.

L-27D

VIRGIL I. GRISSOM MUNI (See BEDFORD)

WABASH MUNI (IWH) 3 SE UTC-5(-4DT) N40°45.72' W85°47.93'

CHICAGO

796 B S8 FUEL 100LL, JET A NOTAM FILE HUF

L-27D

RWY 09-27: H4401X75 (ASPH) S-27 MIRL

IAP

RWY 09: REIL. PAPI(P2L)—GA 3.0° TCH 29'. Road.

RWY 27: REIL. PAPI(P2L)—GA 3.0° TCH 29'. Trees.

RWY 18-36: H1938X30 (ASPH) S-27 LIRL (NSTD)

RWY 18: Thld dsplcd 402'. Trees. RWY 36: Trees.

AIRPORT REMARKS: Attended 1300-2300Z†. Fuel available with credit card after hours. Ultralights fly rgt tfc pattern Rwy 09. Rwy 09-27 preset low ints, ACTIVATE higher ints and REIL Rwy 09 and 27—CTAF. Rwy 18-36 NSTD LIRL; lgts 110' each side of rwy centerline.

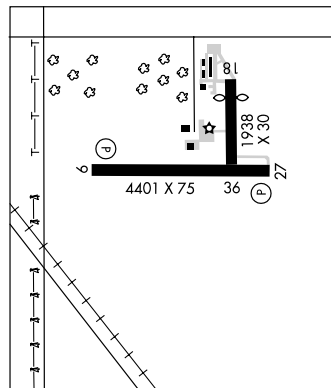
COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ GRISSOM APP/DEP CON 121.05 (1200-0400Z‡)

Ⓡ CHICAGO CENTER APP/DEP CON 121.05 (0400-1200Z‡)

RADIO AIDS TO NAVIGATION: NOTAM FILE GUS.

GRISSOM (T) VORTACW 108.45 GUS Chan 21(Y) N40°38.69' W86°09.10' 068° 17.6 NM to fld. 810/2W. VORTAC unmonitored 0400-1200Z‡.



WALKER/ROWE WATERLOO (See WATERLOO)

WARSAW MUNI (ASW) 2 N UTC-5(-4DT) N41°16.48' W85°50.40'

CHICAGO

850 B S4 FUEL 100LL, JET A NOTAM FILE ASW

H-5E, 10F, L-28I

RWY 09-27: H6002X100 (ASPH-GRVD) S-46, D-60 HIRL

IAP

RWY 09: REIL. PAPI(P2L)—GA 3.0° TCH 24'. Pole.

RWY 27: REIL. PAPI(P4L)—GA 3.0° TCH 54'. Thld dsplcd 901'. Tower.

RWY 18-36: H4012X75 (ASPH) S-15 MIRL

RWY 18: PAPI(P2L)—GA 3.5° TCH 41'. Road.

RWY 36: Road.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 09: TORA-5100 TODA-5100 ASDA-5100 LDA-5100

RWY 27: TORA-6000 TODA-6000 ASDA-6000 LDA-5100

AIRPORT REMARKS: Attended Mon-Fri 1200-0000Z† and Sat-Sun 1300-2300Z†. After hrs svc available 574-267-3689. Deer and birds on and in vof arpt. HIRL Rwy 09-27 preset on low ints to increase ints and ACTIVATE MIRL Rwy 18-36, REIL Rwy 09 and Rwy 27—CTAF. PAPI Rwy 18, Rwy 09 and Rwy 27 on 24 hrs.

WEATHER DATA SOURCES: AWOS-3 121.125 (574) 269-7035

COMMUNICATIONS: CTAF/UNICOM 122.7

GOSHEN RCO 122.1R 113.7T (TERRE HAUTE RADIO)

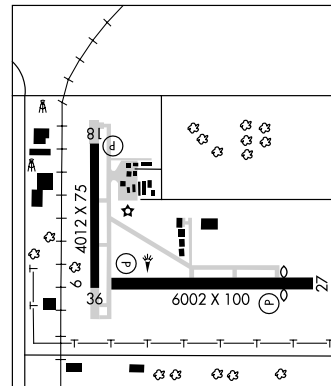
Ⓡ FORT WAYNE APP/DEP CON 127.2 CLNC DEL 134.05

RADIO AIDS TO NAVIGATION: NOTAM FILE GSH.

GOSHEN (H) VORTAC 113.7 GSH Chan 84 N41°31.51' W86°01.68' 150° 17.3 NM to fld. 850/00E.

WOLF LAKE (L) VORW 110.4 OLK N41°14.82' W85°29.84' 279° 15.6 NM to fld. NOTAM FILE HUF.

ILS/DME 111.55 I-ASW Chan 52Y Rwy 27.



WASHINGTON**DAVISS CO**

(DCY) 3 NE UTC-6(-5DT) N38°42.03' W87°07.78'

473 B S4 FUEL 100LL, JET A NOTAM FILE HUF

RWY 18-36: H4621X75 (ASPH) S-10, D-44 MIRL

RWY 18: REIL. PAPI(P2L). Thld dsplcd 315'. Road.

RWY 36: REIL. PAPI(P2L). Trees.

AIRPORT REMARKS: Attended Mon-Sat 1400-2300Z. Fuel self svc,
Rwy 36 REIL OTS indef. For MIRL Rwy 18-36 key 122.8 three times.

COMMUNICATIONS: CTAF/UNICOM 122.8

WASHINGTON RCO 122.2 (TERRE HAUTE RADIO)

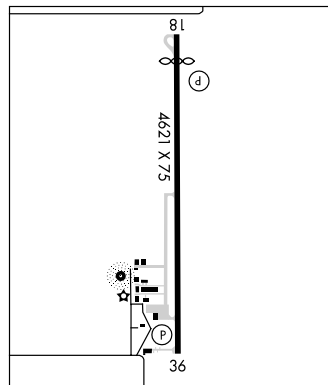
Ⓡ EVANSVILLE APP/DEP CON 125.6 (1200-0500Z)

Ⓡ INDIANAPOLIS CENTER APP/DEP CON 128.3 (0500-1200Z)

RADIO AIDS TO NAVIGATION: NOTAM FILE LWV.

LAWRENCEVILLE (T) VORW/DME 108.8 LWV Chan 25 N38°46.19'
W87°36.23' 101° 22.6 NM to fld. 430/1W.

WASHINGTON NOB (MHW) 212 DCY N38°41.77' W87°07.95' at
fld. NOTAM FILE HUF. Unmonitored.



ST. LOUIS

L-27D

IAP

WASHINGTON NOTAM FILE HUF.

NOB (MHW) 212 DCY N38°41.77' W87°07.95' at Daviess Co. Unmonitored.

RCO 122.2 (TERRE HAUTE RADIO)

ST. LOUIS

L-27D

WATERLOO**WALKER/ROWE WATERLOO**

(4C2) 3 E UTC-5(-4DT) N41°25.87' W84°58.90'

900 S8 FUEL 100LL, MOGAS TPA-1700(800) NOTAM FILE HUF

RWY 09-27: 2340X100 (TURF)

RWY 09: Thld dsplcd 300'. Road.

RWY 27: Thld dsplcd 320'. Road.

AIRPORT REMARKS: Attended irregularly. Rwy 27 60' trees 1405' from rwy end and 160' factory silos 1990' from rwy end and 400' S. Rwy 09 38' trees 780' from rwy end. For scheduled maintenance call 260-837-4403 or 260-908-3275. For fuel call 260-837-4403. Rwy 09-27 3 white tires each side of centerline mark the dsplcd thlds, Rwy marked with grassline and white tires.

COMMUNICATIONS: CTAF/UNICOM 122.8

DETROIT

WESTFIELD (I72) 2W UTC-5(-4DT) N40°02.94' W86°09.47'

932 NOTAM FILE HUF

RWY 18-36: 3000X100 (TURF)

RWY 18: Crops.

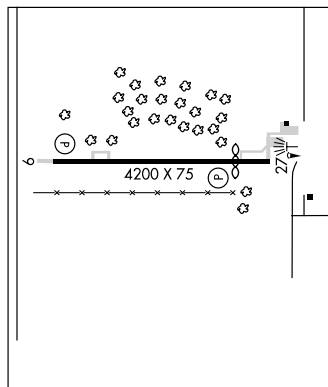
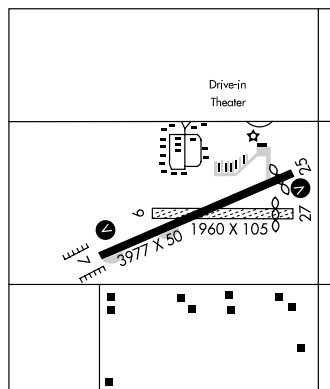
RWY 36: Trees.

AIRPORT REMARKS: Attended irregularly. Rwy 18-36 S 200' CLOSED indef. No snow removal during winter months. Trees and bushes 100' W of centerline penetrate primary surface area. Rwy 18-36 thlds marked with yellow drums.

COMMUNICATIONS: CTAF 122.9.

CHICAGO

WHITE CO (See MONTICELLO)

WINAMAC**ARENS FLD** (RWN) 3 N UTC-6(-5DT) N41°05.54' W86°36.77'**CHICAGO**711 **FUEL** 100LL NOTAM FILE HUF**L-27D****RWY 09-27:** H4200X75 (ASPH) S-12 LIRL**IAP****RWY 09:** REIL. PAPI(P2L)—GA 3.0° TCH 21'. Road.**RWY 27:** REIL. PAPI(P2L)—GA 4.25° TCH 20'. Thld dsplcd 560'.
Antenna.**AIRPORT REMARKS:** Attended Mon-Sat 1500-2300Z±. Rwy 09 REIL OTS
indef. ACTIVATE LIRL Rwy 09-27—122.8.**COMMUNICATIONS:** CTAF/UNICOM 122.8**KNOX RCO** 122.1R, 115.6T (TERRE HAUTE RADIO)**(R) SOUTH BEND APP/DEP CON** 132.05 (Sun-Fri 1030-0500Z±, Sat
1030-0445Z±), other times ctc **(R) CHICAGO CENTER APP/DEP CON**
119.85**RADIO AIDS TO NAVIGATION:** NOTAM FILE HUF.**KNOX (H) VOR/DME** 115.6 OXI Chan 103 N41°19.32'
W86°38.96' 173° 13.9 NM to fld. 690/00E.**WINCHESTER****RANDOLPH CO** (I22) 3 E UTC-5(-4DT) N40°10.14' W84°55.54'**DETROIT**1119 B S2 **FUEL** 100LL, JET A TPA—1919(800) NOTAM FILE HUF**L-27E****RWY 07-25:** H3977X50 (ASPH) S-12 MIRL**IAP****RWY 07:** REIL. VASI(V2L)—GA 3.0° TCH 25'. Crops.**RWY 25:** REIL. VASI(V2L)—GA 3.0° TCH 21'. Thld dsplcd 194'.
Road.**RWY 09-27:** 1960X105 (TURF)**RWY 09:** Crops. **RWY 27:** Thld dsplcd 302'. Road.**AIRPORT REMARKS:** Attended 1300-2200Z±. Arpt CLOSEDThanksgiving and Christmas Day. MIRL Rwy 07-25 preset low
ints, to increase ints and ACTIVATE VASI and REIL Rwy 07 and
25—CTAF. Rwy 27 dsplcd thld marked with cones.**COMMUNICATIONS:** CTAF/UNICOM 123.0**(R) DAYTON APP/DEP CON** 134.45 (181°-359°)**RADIO AIDS TO NAVIGATION:** NOTAM FILE DAY.**DAYTON (L) VOR/DME** 114.5 DQN Chan 92 N40°00.99'
W84°23.81' 292° 26 NM to fld. 990/1W. HIWAS.**WOLF LAKE** N41°14.82' W85°29.84' NOTAM FILE HUF.**CHICAGO****(L) VORW** 110.4 OLK 279° 15.6 NM to Warsaw Muni.**L-28I****VOR** unusable 340°-360° byd 15 NM blo 3000' 168°-230°**YINNO** N39°23.27' W87°23.86' NOTAM FILE HUF.**ST. LOUIS****NDB (MHW/LOM)** 245 HU 050° 5.7 NM to Terre Haute Intl-Hulman Fld. Unmonitored when twr clsd.**L-27D****ZIONSVILLE** N39°56.38' W86°14.92' NOTAM FILE HUF.**CHICAGO****NDB (MHW)** 248 HZP 002° 5.5 NM to Indianapolis Executive. NDB unmonitored.**L-27D**

2009 U.S. & CANADIAN MILITARY AERIAL AIRCRAFT/PARACHUTE DEMONSTRATIONS

During CY 2009, the U.S. and Canadian Military Aerial Demonstration Teams (Thunderbirds, Blue Angels, Snowbirds, and Golden Knights) will be performing on the dates and locations listed below.

Pilots should expect Temporary Flight Restrictions (TFR) in accordance with 14 CFR Section 91.145, Management of aircraft operations in the vicinity of aerial demonstrations and major sporting events. The dimensions and effective times of the TFRs may vary based upon the specific aerial demonstration event and will be issued via the U.S. NOTAM system. Pilots are strongly encouraged to check FDC NOTAMs to verify they have the most current information regarding these airspace restrictions.

The currently scheduled 2009 aerial demonstration locations, subject to change without notice, are:

DATE:		USAF Thunderbirds	USN Blue Angels	Canadian Snowbirds	USA Golden Knights
October	24-25		Fort Worth, TX		Fort Worth, TX
	24-25				Pinehurst, NC
	31		Houston, TX		
November	1		Houston, TX		
	7-8	Homestead AFB, FL	Jacksonville Beach, FL		
	13-14		NAS Pensacola, FL		
	14-15	Nellis AFB, NV			

Note: Dates and locations are scheduled "show dates" only and do not reflect arrival or practice date TFR periods that may precede the specific aerial demonstration events listed above. Again, pilots are strongly encouraged to check FDC NOTAMs to verify they have the most current information regarding any airspace restrictions.

MODEL ROCKET ACTIVITY IN ILLINOIS**Hillsboro Municipal Airport (3K4), Hillsboro, IL**

Model Rocket activity will be conducted within a 2 NM radius of the VLA273011, SFC to 8,000 Feet MSL, SR-SS. For further information contact Flight Services at 1-800-WX-BRIEF (992-7433).

Tuscola Airport (K96), Tuscola, IL

Model Rocket activity will be conducted within a 2 NM radius of Tuscola Airport (K96), SFC to 10,000 feet MSL, SR-SS. For further information contact Flight Services at 1-800-WX-BRIEF (992-7433).

AEROBATIC PRACTICE AREAS IN ILLINOIS**Litchfield Municipal Airport (3LF), Litchfield, IL**

Aerobatic practice will be conducted within 2 NM radius of Litchfield Municipal Airport (3LF), from 1,700 feet MSL to 4,200 feet MSL. The practice area is for waiver holders only. Pilots should use caution when opr within this area. For further information contact Flight Services at 1-800-WX-BRIEF (992-7433).

Smith Airport (LL27), Macomb, IL

Aerobatic practice will be conducted within 2 NM radius of Smith Airport (LL27), SFC to 4,100 feet MSL, SR-SS. For further information contact Flight Services at 1-800-WX-BRIEF (992-7433).

Williamson County Regional Airport (MWA), Marion, IL

Aerobatic practice will be conducted within 1 NM radius of Williamson County Regional Airport (MWA), SFC to 5,000 feet MSL, SR-SS. For further information contact Flight Services at 1-800-WX-BRIEF (992-7433).

Pinckneyville-DuQuoin Airport (PJY), Pinckneyville, IL

Aerobatic practice will be conducted within 2 NM radius of Pinckneyville-DuQuoin Airport (PJY), SFC to 3,900 feet MSL, SR-SS. For further information contact Flight Services at 1-800-WX-BRIEF (992-7433).

Springfield IL, Abraham Lincoln Capital Airport (SPI)

Aerobatic practice will be conducted within 1.5 NM radius of Springfield VOR SPI160010, from 2,100 feet MSL to 4,600 feet MSL, SR-SS. For further information contact Flight Services at 1-800-WX-BRIEF (992-7433).

AEROBATIC PRACTICE AREA**Norris Field (8I12), Richmond, IN**

Aerobatic Flight Activity will be conducted within 1 (one) NM radius of the Richmond (RID) VORTAC 193R/6 DME. Flights will occur from 800' AGL to 3,500' AGL. Pilots should use caution when operating within this area. For further information, Contact Dayton APP CON at 1-937-454-7310 or freq. 134.45.

AEROBATIC PRACTICE AREA**Skyway Estates Airport (60G), Eaton Rapids, MI**

Aerobatic Flight Activity will be conducted within a 1 (one) NM radius of the Lansing (LAN) VORTAC 171R/8DME. Flights will occur from SR to SS from 2,500 MSL to 6,000 MSL.

Pilots should use caution when operating within this area. For further information, contact Lansing ATCT at 1-517-321-1355 or freq. 119.9.

**Search Light Activity
Dayton, OH**

Search light activity will be conducted at the Dayton Schuster Performing Arts Center, Dayton, OH (FFO VORTAC 241/7.23, Lat 39-45-39.56N, Lon 084-11-32.94W) at and above 1500 MSL, from dusk until midnight. Searchlight beams may be injurious to pilots/passengers eyes at 1500 MSL and above. Flash blindness or cockpit illumination may occur at greater distances, to several miles. For further information, contact Dayton AFSS at 937-454-8398.

COMMUNICATIONS ADVISORIES**Indianapolis ARTCC****NABB INDIANA AREA****New Hope, London, Lexington Kentucky Area**

Indianapolis Center has installed frequencies in the southern portion of their airspace that require 720-channel radio capability.

Pilots should be aware that if they fly in the Nabb, IN, or the New Hope, London, and Lexington, KY, area without a 720-channel radio, ATC services will be greatly reduced. Traffic advisories, weather information, airport information, along with any other direct communication services will not be available.

While in this area of Indianapolis Center, pilots without 720-channel capability will, in most cases, monitor Flight Service Stations. There will be a noticeable delay in all clearance activity. Please ensure that ATC has adequate lead time in the event of problems or clearance requirements.

**INTERSECTION DEPARTURES DURING PERIOD OF DARKNESS
CHICAGO O'HARE INTERNATIONAL AIRPORT (ORD)
CHICAGO, ILLINOIS**

Chicago O'Hare International Airport Traffic Control Tower has been granted a waiver to the guideline that prohibits the control tower from taxiing an aircraft into "position and hold" at an intersection, between sunset and sunrise.

This waiver allows the tower to taxi the aircraft into "position and hold" during period of darkness, at the intersections listed below.

Runway 10 at Taxiway ZH
Runway 14L at Taxiway U2
Runway 14L at Taxiway V
Runway 28 at Taxiway ZY
Runway 28 at Taxiway ZV
Runway 32R at Taxiway V
Runway 32L at Taxiway T10
Runway 32L at Taxiway M

Aircraft shall not taxi into position and hold under the provisions of this waiver when the subject intersection is not visible from the tower unless the aircraft's position can be verified by the Airport Surface Detection Equipment (ASDE) prior to the issuance of a departure clearance. When the provisions of this waiver are being exercised, the affected runways shall be used for departures only, departures shall not be permitted from any point on the runway other than the intersections listed above, and only one aircraft at a time is permitted to taxi into position and hold on each respective runway.

**INTERSECTION DEPARTURES DURING PERIOD OF DARKNESS
INDIANAPOLIS INTERNATIONAL AIRPORT (IND)
INDIANAPOLIS, INDIANA**

Indianapolis International Airport Traffic Control Tower has been granted a waiver to the guideline that prohibits the control tower from taxiing an aircraft into "position and hold" at an intersection, between sunset and sunrise.

This waiver allows the tower to taxi the aircraft into "position and hold" during period of darkness, at the intersections listed below.

Runway 23L at Taxiways "C2" and "D2"
Runway 23R at Taxiways "A2" and "B2"

Aircraft shall not taxi into position and hold under the provisions of this waiver when the subject intersection is not visible from the tower. When the provisions of this waiver are being exercised, the affected runways shall be used for departures only. Intersection departures will continue to be utilized at other locations between sunset and sunrise. However, aircraft cannot be taxied into "position and hold" prior to takeoff clearance.

**INTERSECTION DEPARTURES DURING PERIOD OF DARKNESS
GENERAL MITCHELL INTERNATIONAL AIRPORT (MKE)
MILWAUKEE, WISCONSIN**

Milwaukee Mitchell International Airport Traffic Control Tower has been granted a waiver to the guideline that prohibits the control tower from taxiing an aircraft into "position and hold" at an intersection, between sunset and sunrise.

This waiver allows the tower to taxi the aircraft into "position and hold" during period of darkness, at the intersection listed below.

Runway 19R at Taxiway Victor

Aircraft shall not taxi into position and hold under the provisions of this waiver when the subject intersection is not visible from the tower. When the provisions of this waiver are being exercised, the affected runway shall be used for departures only. Intersection departures will continue to be utilized at other locations between sunset and sunrise.

INTERSECTING RUNWAY OPERATIONS

**CHICAGO O'HARE INTERNATIONAL AIRPORT (ORD)
CHICAGO, ILLINOIS**

Chicago O'Hare International (ORD) Airport Traffic Control Tower (ATCT) has been authorized to conduct intersecting runway operations to Runway 28 and Runway 14R whereby an aircraft departing Runway 28 shall be through the intersection of Runway 14R prior to the arriving aircraft on Runway 14R reaching a point no closer than 5,000 feet from the intersection of both runways.

**SIMULTANEOUS OPPOSITE DIRECTION OPERATIONS
CHICAGO O'HARE INTERNATIONAL AIRPORT (ORD)
CHICAGO, ILLINOIS**

Chicago O'Hare International (ORD) Airport Traffic Control Tower (ATCT) has been authorized to conduct arrivals to Runways 14L & 14R while conducting simultaneous opposite direction departures off of runways 09R & 28 during IFR weather conditions. ORD ATCT is authorized to conduct simultaneous converging instrument approaches to runways 14R & 22R while conducting simultaneous opposite direction departures off of runways 09R & 28 during IFR weather conditions.

**SIMULTANEOUS ILS APPROACHES WITH ONE GLIDE SLOPE OUT OF SERVICE
CHICAGO O'HARE INTERNATIONAL AIRPORT (ORD)
CHICAGO, ILLINOIS**

Chicago O'Hare International Airport Traffic Control Tower and Chicago TRACON have been authorized to conduct independent simultaneous ILS approaches with the glide slope of one parallel runway inoperative.

**ILS PRM (SIMULTANEOUS CLOSE PARALLEL) PROCEDURE FOR
PILOTS FILING FLIGHT PLANS TO CLEVELAND-HOPKINS
INTERNATIONAL (CLE)**

Effective Thursday, May 12, 2005. During the hours of 0700-2200 local, CLE ATCT may utilize ILS PRM and LDA PRM apchs to Runways 6L/6R as weather and arrival traffic demand dictate. Aircraft arriving from the west and north (primarily over ZABER and HIMEZ INT.) should expect ILS PRM Runway 6L, aircraft arriving from the east and south (primarily over CXR and KEATN INT.) should expect LDA PRM Runway 6R. If unable to participate in PRM apchs acft operators are required to contact FAA ATCSCC directly at 1-800-333-4286 or at 703-904-4452 prior to departure to obtain a pre-coordinated arrival time. Non-participating acft may encounter DLAS attributable to PRM flow. Pilot requirements and procedures are outlined in the U.S. Terminal Procedures Publications on the pages entitled Attention All Users of ILS Precision Runway Monitor (PRM) or LDA Precision Runway Monitor (PRM).

**SPECIAL NORTH ATLANTIC, CARIBBEAN AND
PACIFIC AREA COMMUNICATIONS**

VHF air-to-air frequencies enable aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problems.

Frequencies have been designated as follows:

North Atlantic area:	123.45 MHz
Caribbean area:	123.45 MHz
Pacific area:	123.45 MHz

CHICAGO, ILLINOIS CHICAGO O'HARE VOR/DME

DME unlocks can occur periodically due to ground station overload when more than 100 aircraft interrogations are received at the same time. The problem may occur when aircraft are being held in the Chicago (O'Hare) terminal area awaiting approach clearance at O'Hare. Possibilities of the problem occurring are reduced by users deactivating interrogators during nonuse or switching to an ILS DME whenever possible. Deactivating interrogators on the ground is especially important since nearby aircraft cause more overload than distant ones.

MILITARY TRAINING ROUTES

The DOD Flight Information Publication AP/1B provides textual and graphic descriptions and operating instructions for all military training routes (IR, VR, SR) and refueling tracks/anchors. Complete and more comprehensive information relative to policy and procedures for IRs and VRs is published in FAA Handbook 7610.4 (Special Military Operations) which is agreed to by the DOD and therefore directive for all military flight operations. The AP/1B is the official source of route data for military users.

CIVIL USE OF MILITARY FIELDS

U.S. Army, Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission.

Army installations, prior permission is required from the Commanding Officer of the installation.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (PRPOC) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (PRPOC), Washington, D.C. 20330.

Use of USAF installations must be specifically justified.

For Navy and Marine Corps installations, prior permission should be requested at least 30 days prior to first intended landing.

An Aviation Facility License must be approved and executed by the Navy prior to any landing by civil aircraft.

Forms and further information may be obtained from the U.S. Navy or Marine Corps aviation activity.

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

AIRCRAFT LANDING RESTRICTIONS

Landing of aircraft at locations other than public use airports may be a violation of Federal or local law. All land and water areas are owned or controlled by private individuals or organizations, states, cities, local governments, or U.S. Government agencies. Except in emergency, prior permission should be obtained before landing at any location that is not a designated public use airport or seaplane base.

Landing of aircraft is prohibited on lands and waters administered by the National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, and on many areas controlled by the U.S. Army Corps of Engineers, unless prior authorization is obtained from the respective agency.

CONTINUOUS POWER FACILITIES

In order to insure that a basic ATC system remains in operation despite an areawide or catastrophic commercial power failure, key equipment and certain airports have been designated to provide a network of facilities whose operational capability can be utilized independent of any commercial power supply.

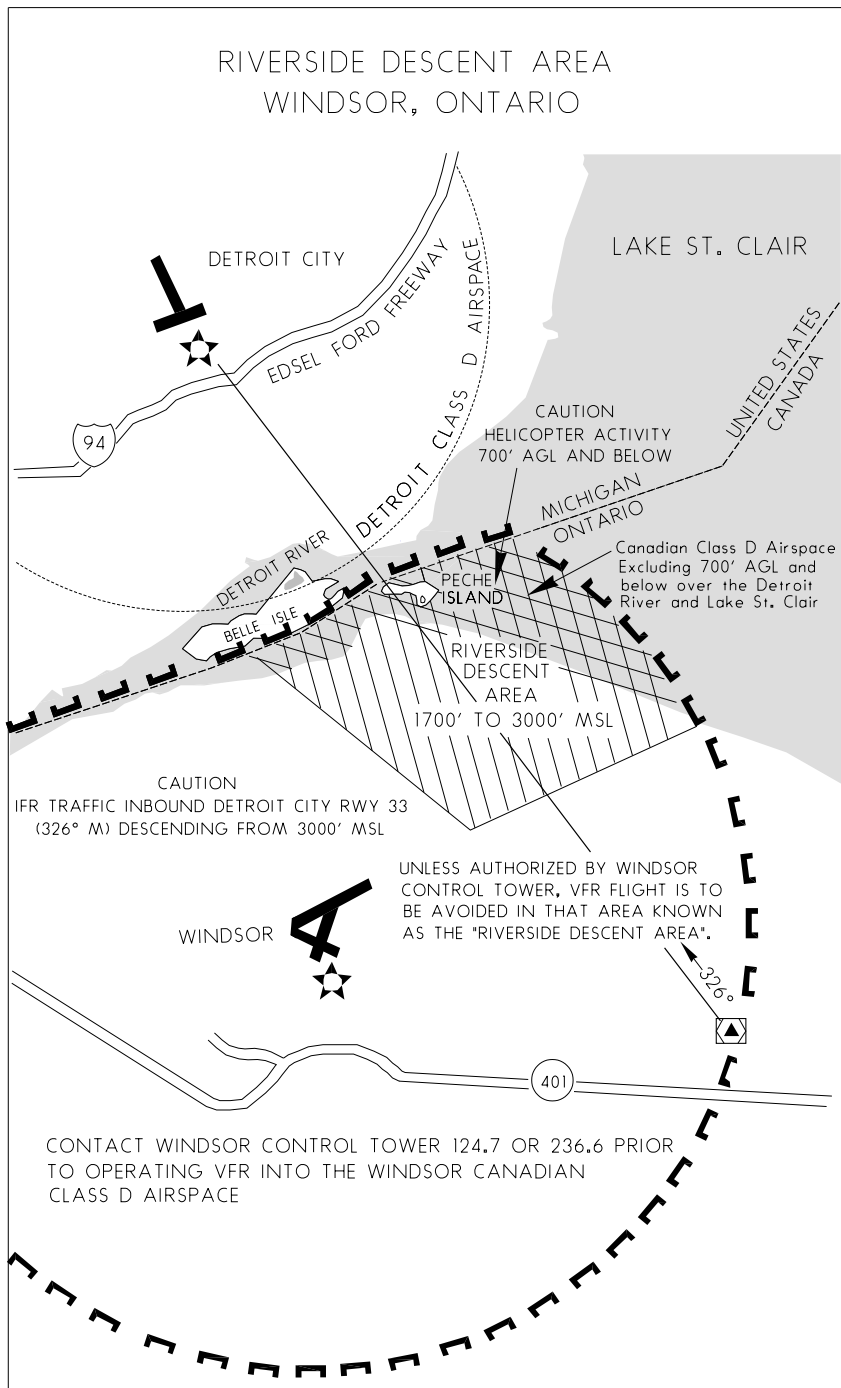
In addition to those facilities comprising the basic ATC system, the following approach and lighting aids have been included in this program for a selected runway.

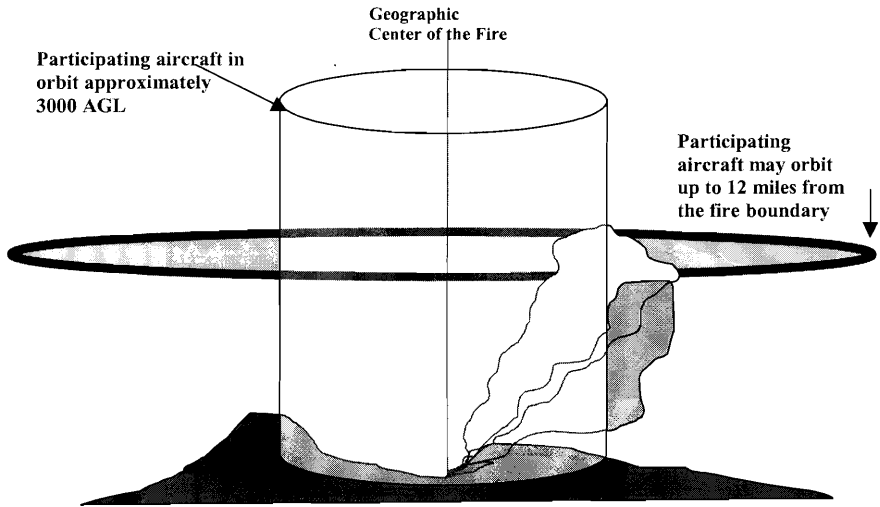
1. ILS (Localizer, Glide Slope, COMLO, Inner, Middle and Outer Markers)
2. Wind Measuring Capability
3. Approach Light System (ALS) or Short ALS (SALS)
4. Ceiling Measuring Capability
5. Touchdown Zone Lighting (TDZL)
6. Centerline Lighting (CL)
7. Runway Visual Range (RVR)
8. High Intensity Runway Lighting (HIRL)
9. Taxiway Lighting
10. Apron Light (Perimeter Only)

The following have been designated "Continuous Power Airports," and have independent back up capability for the equipment installed.

Airport/Ident	Runway No.	Airport/Ident	Runway No.
Albuquerque, NM (ABQ)	08	Milwaukee, WI (MKE)	01L
Anchorage, AK (ANC)	07R	Minneapolis, MN (MSP)	30L
Andrews AFB, MD (ADW)	01L	Nashville, TN (BNA)	02L
Atlanta, GA (ATL)	09R	New Orleans, LA (MSY)	10
Baltimore, MD (BWI)	10	New York, NY (JFK)	04R
Bismarck, ND (BIS)	31	New York, NY (LGA)	22
Boise, ID (BOI)	10R	Newark, NJ (EWR)	04R
Boston, MA (BOS)	04R	Oklahoma City, OK (OKC)	35R
Charlotte, NC (CLT)	36L	Omaha, NE (OMA)	14R
Chicago, IL (ORD)	14R	Ontario, CA (ONT)	26L
Cincinnati, OH (CVG)	36C	Philadelphia, PA (PHL)	09R
Cleveland, OH (CLE)	06R	Phoenix, AZ (PHX)	08
Dallas/Fort Worth, TX (DFW)	17C	Pittsburgh, PA (PIT)	10L
Denver, CO (DEN)	35R	Reno, NV (RNO)	16R
Des Moines, IA (DSM)	31	Salt Lake City, UT (SLC)	34L
Detroit, MI (DTW)	03R	San Antonio, TX (SAT)	12R
El Paso, TX (ELP)	22	San Diego, CA (SAN)	09
Fairbanks, AK (FAI)	01L	San Francisco, CA (SFO)	28R
Great Falls, MT (GTF)	03	San Juan, PR (SJU)	08
Honolulu, HI (HNL)	08L	Seattle, WA (SEA)	16C
Houston, TX (IAH)	26L	St. Louis, MO (STL)	30R
Indianapolis, IN (IND)	05L	Tampa, FL (TPA)	36L
Jacksonville, FL (JAX)	07	Tulsa, OK (TUL)	36R
Kansas City, MO (MCI)	19R	Washington, DC (DCA)	01
Los Angeles, CA (LAX)	24R	Washington, DC (IAD)	01R
Memphis, TN (MEM)	36L	Wichita, KS (ICT)	01L
Miami, FL (MIA)	08R		

NOTE—The existing CPA runway is listed. Pending and future changes at some locations will require a revised runway designation.



FIREFIGHTING TRAFFIC AREAS

Pilots are advised to stay clear of Firefighting Traffic Areas. Remain 15 miles from the area of activity. If you must over-fly the area, do so at an altitude of 5000 feet AGL above. However, to remain safe and out of the way of working aircraft, it is best to circumnavigate the area.

The wild-land fire environment can be very complex and involve a large number and variety of aircraft types including fixed and rotary wing aircraft. Some of the aircraft are small single and multi-engine command and control platforms that can be especially difficult to see and may give the appearance that the fire is not staffed. The aircraft participating in firefighting can orbit as far out as 12 miles from the perimeter of the fire. Any intrusion by aircraft not directly involved in the firefighting operation could delay the delivery of much needed retardant or water to ground firefighters and will adversely affect the safety of participating aircraft. Please stay well away from wild-land fires even if you feel that aircraft are not working the fire; they may be en route or unseen.

If you see a fire developing along your route, report it immediately to air traffic control who will advise the US Forest Service. The firefighting community would welcome this information.

The following narratives summarize the FAR Part 93 Special Air Traffic Rules, and Airport Traffic Patterns in effect as prescribed in the rule. This information is advisory in nature and in no way relieves the pilot from compliance with the specific rules set forth in FAR Parts 91 and 93.

Special Airport Traffic Areas prescribed in Part 93 are depicted on Sectional Aeronautical Charts, World Aeronautical Charts, Enroute Low Altitude Charts, and where applicable, on VFR Terminal Area Charts.

LORAIN (ELYRIA), OHIO LORAIN COUNTY AIRPORT TRAFFIC RULE

Part 93, Subpart J, requires each person piloting an airplane landing at the Lorain County Rgnl Airport shall enter the traffic pattern north of the airport and shall execute a right traffic pattern for a landing to the southwest or a left traffic pattern for a landing to the northeast. Each person taking off from the airport shall execute departure turn to the north as soon as practicable after takeoff.

OPERATIONS RESERVATIONS FOR HIGH DENSITY TRAFFIC AIRPORTS KENNEDY, LAGUARDIA, AND WASHINGTON REAGAN NATIONAL

The Federal Aviation Administration (FAA) has designated New York's Kennedy and LaGuardia Airports and Washington Reagan National Airport as High Density Traffic Airports (HDTA), Title 14, Code of Federal Regulations, part 93, subpart K, and has prescribed air traffic rules and requirements for operating aircraft (excluding helicopters) to and from those airports during certain hours.

Reservations are required for operations from 6 a.m. through 11:59 p.m. local time at LaGuardia Airport and Washington Reagan National Airport. Reservations at Kennedy Airport are required from 3 p.m. through 7:59 p.m. local time.

Reservation procedures are detailed in Advisory Circular 93-1, Reservations for Unscheduled Operations at High Density Traffic Airports. A copy of the advisory circular is available on the FAA website at <http://www.faa.gov>. Reservations for unscheduled operations are allocated through the Enhanced Computer Voice Reservation System (e-CVRS) accessible via telephone or the Internet. This system may not be used to make reservations for scheduled air carrier or commuter flights.

The toll-free telephone number for accessing e-CVRS is 1-800-875-9694 and is available for calls originating within the United States, Canada, and the Caribbean. Users outside the toll-free areas may access e-CVRS by calling the toll number of 703-707-0568. The Internet web address for accessing the e-CVRS is <http://www.fly.faa.gov/ecvrs>. If you have any questions about reservation requirements or are experiencing problems with the system, you may telephone the Airport Reservation Office at the Air Traffic Control System Command Center at (703) 904-4452.

Requests for instrument flight rules (IFR) reservations will be accepted beginning 72 hours prior to the proposed time of operation at the high-density airport. For example, a request for an 11 a.m. reservation on a Thursday will be accepted beginning at 11 a.m. on the previous Monday.

IFR reservations must be obtained prior to IFR landing or takeoff at an HDTA during slot controlled hours. An air traffic control (ATC) clearance does not constitute a reservation. A reservation does not constitute permission to operate at an HDTA if additional operational limits or procedures are required by NOTAM and/or regulation.

Aircraft involved in medical emergencies will be handled by ATC without regard to a reservation after obtaining prior approval of the ATC System Command Center on (703) 904-4452. ATC will accommodate declared other emergency situations without regard to slot reservations.

NOTE: Visual flight rule (VFR) reservations via ATC for unscheduled operations at LaGuardia are not authorized from 7 a.m. through 8:59 a.m. local time and 4 p.m. through 6:59 p.m. local time, Monday through Friday and Sunday evenings, unless otherwise announced by NOTAM. Both IFR and VFR operations during those time periods must obtain an advance reservation through e-CVRS.

FSS TELEPHONE NUMBERS

Flight Service Station (FSS) facilities provide flight planning and weather briefing services to pilots. FSS services in the contiguous United States, Hawaii and Puerto Rico, are provided by a network of large hub facilities and smaller remote facilities which are interconnected with the hubs.

Selected remote FSS facilities across the contiguous United States have variable part-time operating hours. Because of the interconnectivity between remote and hub facilities, all FSS services are available continuously using published telephone numbers and radio frequencies.

EAST CENTRAL U.S.

ILLINOIS: Kankakee, Greater Kankakee (IKK)—**IKK FSS**

MICHIGAN: Lansing, Capital City (LAN)—**LAN FSS**

Telephone Information Briefing Service (TIBS) is the FSS service that provides continuous recordings of meteorological and/or aeronautical information including area and/or route briefings, airspace procedures and special announcements. A touch-tone telephone is required to fully utilize this service.

Further information can be found in the Aeronautical Information Manual (AIM).

NATIONAL FSS TELEPHONE NUMBER

Pilot Weather Briefings 1-800-WX-BRIEF (1-800-992-7433)

OTHER FSS TELEPHONE NUMBERS (except in Alaska)

TIBS (see description above) 1-800-4TIBS-WX (1-877-484-2799)

Clearance Delivery Only 1-888-766-8267

Lifeguard Flights Only 1-877-LIF-GRD3 (1-877-543-4733)

Flights within DC SFRA & FRZ * 1-866-225-7410

* District of Columbia Special Flight Rules Area & Flight Restricted Zone

KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

TAF KPIT 091730Z 091818 15005KT 5SM HZ.FEW020 WS010/31022KT
FM1930 30015G25KT 3SM SHRA OVC015 TEMPO 2022 1/2SM +TSRA
OVC008CB
FM0100 27008KT 5SM SHRA BKN020 OVC040 PROB40 0407 1SM -RA BR
FM1015 18005KT 6SM -SHRA OVC020 BECMG 1315 P6SM NSW SKC

METAR KPIT 091955Z COR 22015G25KT 3/4SM R28L/2600FT TSRA OVC010CB
18/16 A2992 RMK SLP045 T01820159

Forecast	Explanation	Report
TAF	Message type: <u>TAF</u> -routine or <u>TAF AMD</u> -amended forecast, <u>METAR</u> -hourly, <u>SPECI</u> -special or <u>TESTM</u> -non-commissioned ASOS report	METAR
KPIT	ICAO location indicator	KPIT
091730Z	Issuance time: ALL times in UTC " <u>Z</u> ", 2-digit date, 4-digit time	091955Z
091818	Valid period: 2-digit date, 2-digit beginning, 2-digit ending times	
	In U.S. METAR : <u>COR</u> rected ob; or <u>AUTO</u> mated ob for automated report with no human intervention; omitted when observer logs on	COR
15005KT	Wind: 3 digit true-north direction, nearest 10 degrees (or <u>Varia</u> ble); next 2-3 digits for speed and unit, <u>KT</u> (KMH or MPS); as needed, <u>Gust</u> and maximum speed; 00000KT for calm; for METAR , if direction varies 60 degrees or more, <u>Variability</u> appended, e.g. 180 <u>V</u> 260	22015G25KT
5SM	Prevailing visibility: in U.S., <u>Statute Miles</u> & fractions; above 6 miles in TAF <u>Plus</u> 6SM. (Or, 4-digit minimum visibility in meters and as required, lowest value with direction)	3/4SM
	Runway Visual Range: <u>R</u> ; 2-digit runway designator <u>Left</u> , <u>Center</u> , or <u>Right</u> as needed; <u>"</u> / <u>"</u> ; <u>Minus</u> or <u>Plus</u> in U.S., 4-digit value, <u>Feet</u> in U.S., (usually meters elsewhere); 4-digit value <u>Variability</u> 4-digit value (and tendency <u>Down</u> , <u>Up</u> or <u>No change</u>)	R28L/2600FT
HZ	Significant present, forecast and recent weather: see table (on back)	TSRA
FEW020	Cloud amount, height and type: <u>SKY</u> Clear 0/8, <u>FEW</u> >0/8-2/8, <u>SCa</u> tered 3/8-4/8, <u>BroKe</u> N 5/8-7/8, <u>Over</u> cast 8/8; 3-digit height in hundreds of ft; <u>Towering CU</u> mulus or <u>Cumulonim</u> Bus in METAR ; in TAF , only <u>CB</u> . <u>Vertical</u> <u>Visibility</u> for obscured sky and height "VV004". More than 1 layer may be reported or forecast. In automated METAR reports only, <u>CLea</u> R for "clear below 12,000 feet"	OVC010CB
	Temperature: degrees Celsius; first 2 digits, temperature <u>"</u> / <u>"</u> last 2 digits, dew-point temperature; <u>Minus</u> for below zero, e.g., M06	18/16
	Altimeter setting: indicator and 4 digits; in U.S., <u>A</u> -inches and hundredths; (<u>Q</u> -hectoPascals, e.g., Q1013)	A2992

KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

Forecast	Explanation	Report
WS010/31022KT	In U.S. TAF , non-convective low-level ($\leq 2,000$ ft) <u>Wind Shear</u> ; 3-digit height (hundreds of ft); <u>"Z"</u> ; 3-digit wind direction and 2-3 digit wind speed above the indicated height, and unit, <u>KT</u>	RMK SLP045 T01820159
FM1930	In METAR , <u>ReMarK</u> indicator & remarks. For example: <u>Sea-Level Pressure</u> in hectoPascals & tenths, as shown: 1004.5 hPa; <u>Temp/dew-point</u> in tenths °C, as shown: temp. 18.2°C, dew-point 15.9°C	
TEMPO 2022	<u>FroM</u> and 2-digit hour and 2-digit minute beginning time: indicates significant change. Each FM starts on new line, indented 5 spaces.	
PROB40 0407	<u>TEMPO</u> rary: changes expected for < 1 hour and in total, < half of 2-digit hour beginning and 2-digit hour ending time period	
BECMG 1315	<u>PROB</u> ability and 2-digit percent (30 or 40): probable condition during 2-digit hour beginning and 2-digit hour ending time period	
	<u>BEC</u> oMinG: change expected during 2-digit hour beginning and 2-digit hour ending time period	

Table of Significant Present, Forecast and Recent Weather - Grouped in categories and used in the order listed below; or as needed in TAF, No Significant Weather.

QUALIFIER

Intensity or Proximity

- Light "no sign" Moderate + Heavy

VC Vicinity: but not at aerodrome; in U.S. **METAR**, between 5 and 10SM of the point(s) of observation; in U.S. **TAF**, 5 to 10SM from center of runway complex (elsewhere within 8000m)

Descriptor

MI Shallow	BC Patches	PR Partial	TS Thunderstorm
BL Blowing	SH Showers	DR Drifting	FZ Freezing

WEATHER PHENOMENA

Precipitation

DZ Drizzle	RA Rain	SN Snow	SG Snow grains
IC Ice crystals	PL Ice pellets	GR Hail	GS Small hail/snow pellets

UP Unknown precipitation in automated observations

Obscuration

BR Mist ($\geq 5/8$ SM)	FG Fog ($< 5/8$ SM)	FU Smoke	VA Volcanic ash
SA Sand	HZ Haze	PY Spray	DU Widespread dust

Other

SQ Squall	SS Sandstorm	DS Duststorm	PO Well developed dust/sand whirls
FC Funnel cloud	+FC tornado/waterspout		

- Explanations in parentheses "()" indicate different worldwide practices.
- Ceiling is not specified; defined as the lowest broken or overcast layer, or the vertical visibility.
- NWS **TAFs** exclude turbulence, icing & temperature forecasts; NWS **METARs** exclude trend fcsts
- Although not used in US, Ceiling And Visibility OK replaces visibility, weather and clouds if: visibility ≥ 10 km; no cloud below 5000 ft (1500 m) or below the highest minimum sector altitude, whichever is greater and no CB; and no precipitation, TS, DS, SS, MIFG, DRDU, DRSA or DRSN.

UNITED STATES DEPARTMENT OF COMMERCE

NOAA/PA 96052

National Oceanic and Atmospheric Administration—National Weather Service

FAA AND NWS

KEY AIR TRAFFIC FACILITIES

Air Traffic Control System Command Center

Main Number.....703-904-4400

RGNL AIR TRAFFIC DIVISIONS

REGION	TELEPHONE
Alaskan	907-271-5464
Central	816-329-2500
Eastern	718-553-4502
Great Lakes	847-294-7202
New England	781-238-7500
Northwest Mountain	425-227-2500
Southern	404-305-5500
Southwest	817-222-5500
Western Pacific	310-725-6500

AIR ROUTE TRAFFIC CONTROL CENTERS (ARTCCs)

ARTCC NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque	817-222-5006	7:30 a.m.-4:00 p.m.	505-856-4300
Anchorage	907-271-5936	7:30 a.m.-4:00 p.m.	907-269-1137
Atlanta	404-305-5180	7:30 a.m.-5:00 p.m.	770-210-7601
Boston	617-238-7001	7:30 a.m.-4:00 p.m.	603-879-6633
Chicago	847-294-8400	8:00 a.m.-4:00 p.m.	630-906-8221
Cleveland	847-294-8400	8:00 a.m.-4:00 p.m.	440-774-0310
Denver	425-227-1389	7:30 a.m.-4:00 p.m.	303-651-4100
Ft. Worth	817-222-5006	7:30 a.m.-4:00 p.m.	817-858-7300
Houston	817-222-5006	7:30 a.m.-4:00 p.m.	281-230-5300
Indianapolis	847-294-8400	8:00 a.m.-4:00 p.m.	317-247-2231
Jacksonville	404-305-5180	8:00 a.m.-4:30 p.m.	904-549-1501
Kansas City	816-329-3000	7:30 a.m.-4:00 p.m.	913-254-8500
Los Angeles	661-265-8200	7:30 a.m.-4:00 p.m.	661-265-8200
Memphis	404-305-5180	7:30 a.m.-4:00 p.m.	901-368-8103
Miami	404-305-5180	7:00 a.m.-3:30 p.m.	305-716-1500
Minneapolis	847-294-8400	8:00 a.m.-4:00 p.m.	651-463-5580
New York	718-995-5426	8:00 a.m.-4:40 p.m.	516-468-1001
Oakland	310-725-3300	6:30 a.m.-3:00 p.m.	510-745-3331
Salt Lake City	425-227-1389	7:30 a.m.-4:00 p.m.	801-320-2500
Seattle	425-227-1389	7:30 a.m.-4:00 p.m.	253-351-3500
Washington	718-995-5426	8:00 a.m.-4:30 p.m.	703-771-3401

MAJOR TERMINAL RADAR APPROACH CONTROLS (TRACONS)

TRACON NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Atlanta	404-305-5180	7:00 a.m.-3:30 p.m.	404-669-1200
Chicago	847-294-8400	8:00 a.m.-4:00 p.m.	847-608-5509
Dallas/Ft. Worth	817-222-5006	7:30 a.m.-4:00 p.m.	972-615-2500
Denver	425-227-1389	7:30 a.m.-4:00 p.m.	303-342-1500
Houston	817-222-5006	7:30 a.m.-4:00 p.m.	281-230-8400
New York	718-995-5426	8:00 a.m.-4:30 p.m.	516-683-2901
Northern CA	310-725-3300	7:00 a.m.-3:30 p.m.	916-366-4001
Southern CA	310-725-3300	7:30 a.m.-4:00 p.m.	858-537-5800

*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

KEY AIR TRAFFIC FACILITIES

DAILY NAS REPORTABLE AIRPORTS

AIRPORT NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque Intl Sunport, NM	817-222-5006	8:00 a.m.-5:00 p.m.	505-842-4366
Andrews AFB, MD	718-995-5426	8:00 a.m.-4:30 p.m.	301-735-2380
Baltimore/Washington Intl Thurgood Marshall, MD	718-995-5426	8:00 a.m.-4:30 p.m.	410-962-3555
Boston Logan Intl, MA	781-238-7001	7:30 a.m.-4:00 p.m.	617-455-3100
Bradley Intl, CT	617-238-7001	7:30 a.m.-4:00 p.m.	203-627-3428
Burbank/Bob Hope, CA	310-725-3300	7:00 a.m.-5:30 p.m.	818-567-4806
Charlotte Douglas Intl, NC	404-305-5180	8:00 a.m.-4:30 p.m.	704-344-6487
Chicago Midway, IL	847-294-8400	8:00 a.m.-4:00 p.m.	773-884-3670
Chicago O'Hare Intl, IL	847-294-8400	8:00 a.m.-4:00 p.m.	773-601-7600
Cleveland Hopkins Intl, OH	847-294-8400	8:00 a.m.-4:00 p.m.	216-898-2020
Covington/Cincinnati, OH	708-294-7401	8:00 a.m.-4:30 p.m.	606-767-1006
Dallas/Ft. Worth Intl, TX	817-222-5006	8:30 a.m.-5:00 p.m.	972-615-2531
Dayton Cox Intl, OH	847-294-8400	7:30 a.m.-4:00 p.m.	937-454-7300
Denver Intl, CO	425-227-1389	7:30 a.m.-4:00 p.m.	303-342-1600
Detroit Metro, MI	847-294-8400	8:00 a.m.-4:00 p.m.	734-955-5000
Fairbanks Intl, AK	907-271-5936	7:30 a.m.-4:00 p.m.	907-474-0050
Fort Lauderdale Intl, FL	404-305-5180	7:00 a.m.-3:30 p.m.	305-356-7932
George Bush Intercontinental/Houston, TX	817-222-5006	7:30 a.m.-4:00 p.m.	713-230-8400
Hartsfield-Jackson Atlanta Intl, GA	404-305-5180	7:00 a.m.-3:30 p.m.	404-669-1200
Honolulu Intl, HI	310-643-3200	7:30 a.m.-4:00 p.m.	808-840-6100
Houston Hobby, TX	817-222-5006	8:00 a.m.-5:00 p.m.	713-847-1400
Indianapolis Intl, IN	847-294-8400	8:00 a.m.-4:00 p.m.	317-484-6600
Kahului/Maui, HI	310-643-3200	7:30 a.m.-4:00 p.m.	808-877-0725
Kansas City Intl, MO	816-329-3000	7:30 a.m.-4:00 p.m.	816-329-2700
Las Vegas McCarran, NV	310-725-3300	7:30 a.m.-4:00 p.m.	702-262-5978
Los Angeles Intl, CA	310-725-3300	7:00 a.m.-3:30 p.m.	310-342-4900
Memphis Intl, TN	404-305-5180	7:30 a.m.-4:00 p.m.	901-322-3350
Louis Armstrong New Orleans Intl, LA	817-222-5006	7:00 a.m.-4:30 p.m.	504-471-4300
Miami Intl, FL	404-305-5180	7:00 a.m.-4:00 p.m.	305-869-5400
Minneapolis/St. Paul, MN	847-294-8400	8:00 a.m.-4:00 p.m.	612-713-4000
Nashville Intl, TN	404-305-5180	7:00 a.m.-3:30 p.m.	615-781-5460
New York Kennedy Intl, NY	718-995-5426	8:00 a.m.-4:30 p.m.	718-656-0335
New York La Guardia, NY	718-995-5426	8:00 a.m.-4:30 p.m.	718-335-5461
Newark Liberty Intl, NJ	718-995-5426	8:00 a.m.-4:30 p.m.	973-645-3103
Norman Y. Mineta San Jose Intl, CA	310-643-3200	7:30 a.m.-4:00 p.m.	408-982-0750
Ontario Intl, CA	310-643-3200	7:30 a.m.-4:00 p.m.	909-983-7518
Orlando Intl, FL	404-305-5180	7:30 a.m.-5:00 p.m.	407-850-7000
Philadelphia Intl, PA	718-995-5426	8:00 a.m.-4:30 p.m.	215-492-4100
Phoenix Sky Harbor Intl, AZ	310-643-3200	7:30 a.m.-4:00 p.m.	602-379-4226
Pittsburgh Intl, PA	718-995-5426	8:00 a.m.-4:30 p.m.	412-269-9237
Portland Intl, OR	425-227-1389	7:30 a.m.-4:00 p.m.	503-493-7500
Raleigh-Durham, NC	404-305-5180	8:00 a.m.-4:30 p.m.	919-840-5544
Ronald Reagan Washington National, DC	718-995-5426	8:00 a.m.-4:30 p.m.	703-413-1535
Salt Lake City, UT	425-227-1389	7:30 a.m.-4:00 p.m.	801-325-9600
San Antonio Intl, TX	817-222-5006	8:00 a.m.-4:30 p.m.	210-805-5507
San Diego Lindbergh Intl, CA	310-725-3300	8:00 a.m.-4:30 p.m.	619-299-0677
San Francisco Intl, CA	310-643-3200	7:00 a.m.-3:30 p.m.	650-876-2883
San Juan Intl, PR	404-305-5180	7:30 a.m.-5:00 p.m.	809-253-8663
Seattle-Tacoma Intl, WA	425-227-1389	7:30 a.m.-4:00 p.m.	206-768-2900
St. Louis Lambert, MO	816-329-3000	7:30 a.m.-4:00 p.m.	314-890-1000
Tampa Intl, FL	404-305-5180	7:30 a.m.-4:00 p.m.	813-371-7700
Ted Stevens Anchorage Intl, AK	907-271-5936	7:30 a.m.-4:00 p.m.	907-271-2700
Teterboro, NJ	718-995-5426	8:00 a.m.-4:30 p.m.	201-288-1889
Washington Dulles Intl, DC	718-995-5426	8:00 a.m.-4:30 p.m.	703-661-6031
West Palm Beach, FL	404-305-5180	8:00 a.m.-4:30 p.m.	407-683-1867
Westchester Co, NY	718-995-5426	8:00 a.m.-4:30 p.m.	914-948-6520

*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

Air Route Traffic Control Center frequencies and their remoted transmitter sites are listed below for the coverage of this volume. Bold face type indicates high altitude frequencies, light face type indicates low altitude frequencies. To insure unrestricted IFR operations within the high altitude enroute sectors, the use of 720 channel communications equipment (25 kHz channel spacing) is required.

®CHICAGO CENTER 127.8 125.2

H-2-5-10-12, L-12-27-28-31, A-1
(KZAU)

Aurora – 123.75
Burlington – 135.6
Chicago Heights – 132.95
Crown Point – 127.8
Danville – 135.75
Des Plaines – 133.2 128.65 120.35
Downers Grove – 135.75 127.6
Dubuque – **127.775** 133.95 **125.225**
Ft. Wayne – **126.325** 119.85
Goshen – 133.9 135.9 127.55
Grand Rapids – **126.125** 128.4
Hampshire – 134.2 133.35
Horicon – 135.55 **132.75** **132.225**
Jones – **125.975** **120.225**
Kankakee – 132.5 120.125 **118.225**
Lafayette – 123.85
Leroy – 119.225
Lone Rock – 133.3
Maple Park – 127.075
Milford – **135.4** **132.5** 127.45 125.05 120.175
Milwaukee – 134.75 132.3 125.1
Moline – **135.825** 118.75
Monroe – **133.425**
Muskegon – **132.27**
Oshkosh – 132.1
Pullman – 128.5
Rockford – **120.375**
Rossville 125.375 **120.975**
South Bend – **135.35**
Volk Fld 125.05

®CLEVELAND CENTER
H-2-5-10-11, L-27-28-29-30-31-32, A-2
(KZOB)

Algonac – **134.775** 132.25 **126.525**
Belmont – **135.175** **124.425** 120.4
Carleton – **134.775** 119.95
Chardon – 120.775
Detroit (North) – **120.075**
Findlay – 135.1 **127.675**
Flint – 127.7 126.75
Holland – **135.775** **121.175**
Jackson – 134.65 127.3
Litchfield – **135.725** 134.65 120.45
Mansfield – 134.9 **133.375**
Mt Hope – 120.6
Paris – 128.15 120.6
Saginaw – **133.525** 127.7
Sandusky – 132.45 127.9 **119.875** **119.325**
Waterville – 128.625

® INDIANAPOLIS CENTER – 133.425 132.775 128.375**H-5-9-10-12, L-16-25-26-27-29****(KZID)**

125.55 124.525 119.55

Brookville – 135.8 135.125 120.575**Evansville – 132.525 128.3****Henryville – 134.275 133.05 124.775****London – 134.0 128.775 126.57 124.8 120.475****Marietta – 125.55****Merwyn – 135.575 134.7 123.925****Muncie – 120.65****New Hope – 124.625 121.175****Portsmouth – 135.575 124.225 120.275****Rosewood – 128.075****Terre Haute – 134.175 132.2****Winchester – 128.22 126.375 123.775****Zanesville – 133.775 132.825 125.075 124.45****® KANSAS CITY CENTER – 135.3****H-5-6, L-10-15-16-27, A-2****(KZKC)****Decatur – 132.1 124.3****Effingham – 135.05 133.225 124.3****Kirksville – 134.625 132.6****Marion – 125.3****Mt Vernon – 132.875 127.7****Quincy – 135.525****St Charles – 125.9 121.25****St Louis – 128.1 127.225 125.5****Vandalia – 125.725****® MINNEAPOLIS CENTER****H-2-5-10-11, L-10-12-13-14-27-28-31****(KZMP)****Central Wisconsin – 124.4****Duluth – 134.675 134.55 134.55 127.9****Eau Claire – 133.75 125.3****Escanaba – 127.65****Farmington – 133.7****Flying Cloud – 133.7 121.05****Green Bay – 125.55****Hayward – 126.45****Houghton – 127.2****Iron Mountain – 133.45 121.25****Ironwood – 133.55****La Crosse – 128.6 118.85****Mosinee – 124.4****Pellston – 134.6 132.425****Princeton – 121.05****Rhineland – 123.725 133.65****Rochester – 132.35****Saginaw – 118.05****Sawyer – 119.1****Swinns Valley – 135.7 134.85****Traverse City – 132.9****White Cloud – 132.55 120.85**

VHF frequencies available at Flight Service Stations and at their remote communication outlets (RCO's) are listed below for the coverage of this volume. Frequencies in bold type are available all altitudes but recommended for use FL180 and above. "T" indicates transmit only and "R" indicates receive only. RCO's available at NAVAIDS are listed after the NAVAID name. RCO's not at NAVAID's are listed by name.

CLEVELAND AFSS

AKRON VOR/DME 114.4T 122.1R
BELLAIRE VOR/DME 117.1T 122.1R
BRIGGS VOR/DME 112.4T 122.1R
CHARDON VOR/DME 112.7T 122.1R
CLEVELAND RCO 122.1R 122.2 **122.35**
DRYER VOR/DME 113.6T 122.1R
FINDLAY VORTAC 108.2T 122.1R 122.2 **122.65**
JEFFERSON VOR/DME 115.2T 122.1R
MANSFIELD VORTAC 108.8T 122.1R **122.6**
NEWCOMERSTOWN VOR/DME 111.8T 122.1R
SANDUSKY VOR/DME 109.2T 122.1R
WATERVILLE VOR/DME 113.1T 122.1R
YOUNGSTOWN VORTAC 109.0T 122.1R 122.2
ZANESVILLE VOR/DME 111.4T 122.1R 122.2 **122.5**

DAYTON AFSS

ALLEN COUNTY VOR 108.4T 122.1R
ATHENS-ALBANY RCO 122.25
APPLETON VORTAC 116.7T 122.1R
CINCINNATI RCO **122.4**
COLUMBUS RCO 122.2 **122.3**
DAYTON RCO 114.5T 122.1R 122.2 **122.55**
DAYTON VOR/DME 114.5T 122.1R
GALLIPOLIS RCO 121.65
HILLSBORO RCO 122.2
ROSEWOOD VORTAC 117.5T 122.1R
YELLOW BUD VOR 112.5T 122.1R

GREEN BAY AFSS

ASHLAND RCO 122.25
BLACK RIVER FALLS RCO 122.5
CHIPPEWA RCO 123.65
DELLS VORTAC 117.0T 122.1R
EAU CLAIRE RCO 122.65 123.6
ESCANABA RCO 122.3
FALLS VOR/DME 110.0T 122.1R
FOND DU LAC RCO 122.5
GREEN BAY RCO 122.2 122.55
HANCOCK RCO **122.525** 123.65
HAYWARD VOR/DME 113.4T 122.1R
IRON MOUNTAIN VOR/DME 111.2T 122.1R
IRONWOOD RCO 122.3
JANESVILLE VOR/DME 114.3T 122.1R
KENOSHA VOR/DME 109.2T 123.6R
LA CROSSE RCO 122.2 122.35
LONE ROCK RCO 122.35
MACKINAC ISLAND RCO 122.35
MADISON RCO 122.6
MARSHFIELD RCO 122.55
MANITOWOC VOR/DME 111.0T 122.1R
MENOMINEE VOR/DME 109.6T 122.1R
MILWAUKEE RCO 122.4 122.65
MOSINEE RCO **122.525**
NEWBERRY RCO 122.4
OSHKOSH VORTAC 111.8T 122.1R 122.25
PHILLIPS RCO 122.05
PLATTEVILLE RCO 122.5
PRAIRIE DU CHIEN RCO 122.25
RHINELANDER VORTAC 109.2T 122.1R
RICE LAKE RCO 122.3
SAULT STE MARIE VOR/DME 112.2T 122.1R
SAWYER RCO 123.6
SCHOOLCRAFT COUNTY RCO 122.25
SIREN VOR/DME 109.4T 122.1R
STEVENS POINT VORTAC 110.6T 122.1R
TIMMERMAN VOR/DME 112.5T 123.6R
WAUSAU RCO 122.4
WEST BEND VOR 109.8T 122.1R
WISCONSIN RAPIDS RCO 122.45
WOODRUFF RCO 122.6

KANKAKEE AFSS

BLOOMINGTON VOR/DME 108.2T 123.6R
BRADFORD VORTAC 114.7T 122.05R 123.6
CHICAGO HEIGHTS VORTAC 114.2T 122.1R
CHICAGO MEIGS RCO **122.15**
DUPAGE VOR/DME 108.4T 122.1R 122.3
GALESBURG VOR/DME 109.8T 122.1R
JOLIET VORTAC 112.3T 122.1R 122.5
KANKAKEE VOR/DME 111.6T 122.1R 122.2
MACOMB RCO **122.15**
MOLINE RCO **122.6**
NEW LENOX RCO 122.5
PEORIA RCO 122.35
PEOTONE VORTAC 113.2T 122.05R
POLO VOR/DME 111.2T 122.1R
PONTIAC VOR/DME 109.6T 122.1R
ROCKFORD VOR/DME 110.8T 122.1R 122.65
WAUKEGAN RCO 122.55

LANSING AFSS

ALPENA VORTAC 108.8T 122.1R
 BAD AXE RCO 122.65
 BATTLE CREEK RCO 122.2
 BARRIEN SPRINGS RCO 121.625
 CARLETON VORTAC 115.7T 122.1R
 DETROIT RCO 122.2 **122.55**
 FLINT RCO 122.3
 GAYLORD RCO 122.55
 GRAND RAPIDS VOR/DME 115.95T 122.1R
 JACKSON RCO 122.2
 KALAMAZOO VOR/DME 109.0T 122.1R
 KEELER VOR/DME 116.6T 122.1R
 LANSING RCO 122.2
 LITCHFIELD VOR/DME 111.2T 122.1R
 LUDINGTON RCO 122.45
 MANISTEE VOR/DME 111.4T 122.1R
 MOUNT PLEASANT RCO 122.6
 MUSKEGON RCO 122.5
 PECK VORTAC 114.0T 122.1R
 PELLSTON RCO 122.2 122.3 123.6
 PONTIAC VORTAC 111.0T 122.15R
 PULLMAN VOR/DME 112.1T 122.1R
 SAGINAW RCO 122.2 122.4
 SALEM VORTAC 114.3T 122.1R
 TRAVERSE CITY RCO 122.2 **122.65**
 WEST BRANCH RCO 122.35
 WHITE CLOUD VORTAC 117.6T 122.1R

SAINT LOUIS AFSS 122.2 122.45

BIBLE GROVE VORTAC 109.0T 122.05R
 CENTRALIA VORTAC 115.0T 122.1R
 CHAMPAIGN VORTAC 110.0T 122.1R 122.45
 DANVILLE VORTAC 111.0T 122.1R
 DECATUR VORTAC 117.2T 122.1R 122.3
 MARION VOR/DME 110.4T 122.1R
 MATTOON VOR/DME 109.4T 123.6R
 MOUNT VERNON VOR/DME 113.8T 122.05R
 QUINCY VORTAC 113.6T 122.1R 122.5
 ROBERTS VOR/DME 116.8T 122.1R
 SAINT LOUIS REGIONAL RCO 122.05
 SAMSVILLE VOR/DME 116.6T 122.1R
 SPINNER VORTAC 112.7T 122.25
 VANDALIA VORTAC 114.3T 122.1R

TERRE HAUTE AFSS

CROWNPOINT RCO 123.65
 EVANSVILLE RCO 122.65
 FORT WAYNE RCO 122.2 122.45
 GOSHEN VORTAC 113.7T 122.1R
 HOOSIER VORTAC 110.2T 122.1R
 INDIANAPOLIS RCO 122.55
 KNOX VOR/DME 115.6T 122.1R
 KOKOMO VORTAC 113.5T 122.1R
 LAFAYETTE RCO 122.2 122.35
 MUNCIE VOR/DME 114.4T 122.1R
 NABB VORTAC 112.4T 122.1R
 OSGOOD RCO 122.25
 RICHMOND VORTAC 110.6T 122.1R
 SHELBYVILLE VORTAC 112.0T 122.1R
 SOUTH BEND RCO 122.6
 TERRE HAUTE RCO **122.65**
 WASHINGTON RCO 122.2

FLIGHT STANDARDS DISTRICT OFFICES (FSDO)

Below is a list of FSDO's in the area of coverage of this directory. These offices serve the aviation industry and the general public on matters relating to certification and operation of general aviation aircraft. Address letters to Manager, Flight Standards District Office—Federal Aviation Administration.

ILLINOIS

DuPage Airport
31W775 North Avenue
West Chicago, Illinois 60185-1056
Telephone: 630-443-3100

Capital Airport
1250 North Airport Drive, Suite 1
Springfield, Illinois 62707-8417
Telephone: 217-744-1910

9950 West Lawrence Ave., Suite 400
Schiller Park, Illinois 60176
Telephone: 847-928-8000

INDIANA

8303 W. Southern Avenue
Indianapolis, Indiana 46241
Telephone: 317-487-2400

1843 Commerce Drive, Suite 200
South Bend, Indiana 46628
Telephone: 219-245-4600

MICHIGAN

3196 Kraft Ave. SE, Suite 103
Grand Rapids, Michigan 49512
Telephone: 616-954-6657

Willow Run Airport
8800 Beck Road
Belleville, Michigan 48111
Telephone: 734-487-7222

OHIO

Great Northern Technology Park II
25249 Country Club Blvd.
North Olmsted, Ohio 44070
Telephone: 440-686-2001

Lunken Airport Executive Building
Ground Floor
4242 Airport Road
Cincinnati, Ohio 45226
Telephone: 513-979-6400

Port Columbus International Airport
2780 Airport Drive, Suite 300
Columbus, Ohio 43219
Telephone: 614-255-3120

WISCONSIN

General Mitchell Intl Airport
4915 S. Howell Ave.
Milwaukee, Wisconsin 53207
Telephone: 414-486-2920

ROUTES

PREFERRED IFR ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred IFR routes which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic service.

The following lists contain preferred IFR routes for the low altitude stratum and the high altitude stratum. The high altitude list is in two sections; the first section showing terminal to terminal routes and the second section showing single direction route segments. Also, on some high altitude routes low altitude airways are included as transition routes.

The following will explain the terms/abbreviations used in the listing:

1. Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flight are normally cleared directly on the airway.

2. Preferred IFR routes beginning/ending with a fix indicate that aircraft may be routed to/from these fixes via a Standard Instrument Departure (SID) route, radar vectors (RV), or a Standard Terminal Arrival Route (STAR).

3. Preferred IFR routes for major terminals selected are listed alphabetically under the name of the departure airport. Where several airports are in proximity they are listed under the principal airport and categorized as a metropolitan area; e.g., New York Metro Area.

4. Preferred IFR routes used in one direction only for selected segments, irrespective of point of departure or destination, are listed numerically showing the segment fixes and the direction and times effective.

5. Where more than one route is listed the routes have equal priority for use.

6. Official location identifiers are used in the route description for VOR/VORTAC nav aids.

7. Intersection names are spelled out.

8. Navaid radial and distance fixes (e.g., ARD20113) have been used in the route description in an expediency and intersection names will be assigned as soon as routine processing can be accomplished. Navaid radial (no distance stated) may be used to describe a route to intercept a specified airway (e.g., MIV MIV101 V39); another navaid radial (e.g., UIM UIM255 GSW031); or an intersection (e.g., GSW081 FITCH).

9. Where two nav aids, an intersection and a nav aid, a nav aid and a nav aid radial and distance point, or any navigable combination of these route descriptions follow in succession, the route is direct.

10. The effective times for the routes are in UTC. During periods of daylight saving time effective times will be one hour earlier than indicated. All states observe daylight saving time except Arizona, Puerto Rico and the Virgin Islands. Pilots planning flight between the terminals or route segments listed should file for the appropriate preferred IFR route.

11. (90–170 incl) altitude flight level assignment in hundred of feet.

12. The notations "pressurized" and "unpressurized" for certain low altitude preferred routes to Kennedy Airport indicate the preferred route based on aircraft performance.

13. High Altitude Preferred IFR Routes are in effect during the following time periods unless otherwise noted.

Sun	1300–2259 local time.
Mon thru Fri	0701–2259 local time.
Sat	0701–1459 local time.

14. Use current SIDs and STARs for flight planning.

15. For high altitude routes, the portion of the routes contained in brackets [] is suggested but optional. The portion of the route outside the brackets will likely be required by the facilities involved.

LOW ALTITUDE

Terminals	Route	Effective Times (UTC)
CHICAGO METRO AREA		
From Midway (MDW) or O'Hare (ORD)		
Atlanta (ATL)	EON V171 TTH V243 GQO V333 DALAS ATL	
Denver (DEN)	SIMMN V172 OBH V219 HCT V8 DVV	
Indianapolis (IND)	EON V399 KENLA V128 JELLS	
Louisville (LOU)	EON V171 TTH V243 IU279 CHERI	1100–0300
Memphis (MEM)	RBS V429 MWA V67 CNG V11 MIOLA	1600–2300
Miami (MIA)	EON V171 TTH V243 LGC V321 PZD V159 CTY V7	
	LAL V157 LBV V529 V35 CURVE	1100–0300
Pittsburgh (PIT)	GIJ V6 DJB V30 ACO V337 CUTTA	1100–0300
San Francisco (SFO)	SIMMN V172 PLL V158 DBQ V100 MBW V6 FMG	
	V6	
Tampa (TPA)	EON V171 TTH V243 LGC V321 PZD V159 CTY	
	V35 ENDED	
	or	
	(GPS or DME/DME-IRU Equipped) EON V171 TTH	
	V243 LGC V321 PZD V159 CTY V35 ENDED	

Terminals	Route	Effective Times (UTC)
Tulsa (TUL)	MZV BRL V63 SGF V14	0000-2359
Washington Natl (DCA)	EON V144 ESL V4 MANNE	1100-0300
From Midway (MDW) only		
Des Moines (DSM)	SIMMN V172 TNU	1100-0300
Detroit Metro-Wayne Co. (DTW)	GIJ V10 LFD MIZAR-STAR	
Detroit Satellites:		
Ann Arbor (ARB)		
Pontiac (PTK)		
Willow Run (YIP)	GIJ V10 LFD CRUX-STAR	
Windsor (YQG)		
Young (DET)	GIJ ELX V218 LAN SPRTN-STAR	
Kansas City (MKC)	MZV BRL V10 IRK BQS-STAR	1100-0300
Omaha (OMA)	SIMMN V172 OVR	0000-2359
From O'Hare (ORD) only		
Cleveland (CLE)	GIJ V6 VWV WAKEM-STAR	1100-0300
Des Moines (DSM)	SIMMN V172 TNU	0000-2359
Detroit Metro-Wayne Co (DTW)	PETTY MKG POLAR-STAR	
Detroit Satellites:		
Ann Arbor (ARB)		
Pontiac (PTK)		
Willow Run (YIP)		
Windsor (YQG)		
Young (DET)	MUSKY V100 ELX V218 LAN SPRTN-STAR	
Kansas City (MKC)	MZV BRL V10 IRK BQS-STAR	
Memphis (MEM)	RBS V429 MWA V67 CNG V11 MIOLA	0000-2359
Muskegon (MKG)	PETTY V216	
Omaha (OMA)	SIMMN V172 OVR	0000-2359
Saginaw (MBS)	PETTY MKG V216	
From O'Hare (ORD) and North Satellite Airports		
Detroit Metro-Wayne Co. (DTW)	(150-230 incl) PETTY MKG POLAR-STAR	1100-0300
CINCINNATI METRO AREA (CVG, LUK)		
Detroit/Wayne (DTW)	DQN MIZAR-STAR	1100-0300
Detroit Satellites:		
Ann Arbor (ARB)	DQN CRUX-STAR	1100-0300
Pontiac (PTK)		
Willow Run (YIP)	DQN CRUX-STAR	
Windsor (YQG)		
Young (DET)	V275 KLINE VWV VWV064 LYNTN	
From COVINGTON (CVG) only		
Atlanta (ATL)	V97 VXV V267 HRS V463 WOMAC	1100-0300
Chicago Midway (MDW)	V128 VHP BVT V97 CGT	1100-0300
Chicago O'Hare (ORD)	V128 VHP BVT V97 CGT V7 BEBEE	1100-0300
Indianapolis (IND)	V128 VHP	1100-0300
Knoxville (TYS)	HYK V97	
Louisville (SDF)	CVG206 IIU055 IIU	1100-0300
Pittsburgh (PIT)	(60-170 incl) V128 YRK V44 JPU V117 WISKE WISKE-STAR	1100-0300
CLEVELAND METRO AREA (CLE, CGF, BKL, LNN, LPR)		
Baltimore (BWI)	(90-170 incl) ACO AIR V75 MGW V44 MRB V3 EMI	1100-0300
Boston (BOS)	(60-170 incl) V522 ERI V270 CFB V72 ALB V2 GDM GDM-STAR	1100-0300
Buffalo (BUF)	(60-170 incl) V522 ERI V43 WELLA	
Chicago Midway (MDW)	(60-170 incl) SKY VWV V126 CGT	1100-0300
Chicago O'Hare (ORD)	(60-170 incl) V45 VWV V126 HALIE V340 BEARZ	1100-0300
Columbus (CMH)	(60-170 incl) DJB DJB173 HERAK APE035 APE	
Dayton (DAY)	(60-170 incl) OBRLN-DP ROD	
Detroit/Wayne (DTW)	(60-170 incl) DJB DJB314 GEMNI GEMNI- STAR	
Detroit Satellites:		
Ann Arbor (ARB)		
Pontiac (PTK)		

Terminals	Route	Effective Times (UTC)
Willow Run (YIP)	(60–170 incl) DJB LLEE0-STAR	1100-0300
Windsor (YQG)	(60–170 incl) OBRLN-DP MIE MIE244 CLANG	
Young (DET)	CLANG-STAR	
Indianapolis (IND)	(60–170 incl) ACO V337 CUTTA	1100-0300
Pittsburgh (PIT)	(60–170 incl) V522 ERI V14 BUF V2 CLUNG	1100-0300
Rochester (ROC)	(90–170 incl) ACO AIR V75 MGW V144 ESL V4	
Washington Dulles (IAD)	AML	1100-0300
	or	
	(90–170 incl) ACO AIR V75 MGW V44 MRB AML ..	1100-0300
Washington Natl (DCA)	(90–170 incl) ACO AIR V75 MGW V144 ESL V4	
	AML	1100-0300
COLUMBUS (CMH)		
Cleveland (CLE)	(60–170 incl) V43 TVT KEATN-STAR	1100-0300
Pittsburgh (PIT)	(60–170 incl) APE V12 CTW WISKE-STAR	1100-0300
Toledo (TOL)	V493 VWV	1100-0300
DAYTON (DAY)		
Chicago Midway (MDW)	V55 V422 CGT	1100-0300
Chicago O'Hare (ORD)	V55 FWA V340 BEARZ	1100-0300
Cleveland (CLE)	DQN ABERZ-STAR	1100-0300
Detroit Metro-Wayne Co (DTW)	DQN MIZAR-STAR	1100-0300
Detroit Satellites:		
Ann Arbor (ARB)		
Pontiac (PTK)		
Willow Run (YIP)	DQN CRUX-STAR	
Windsor (YQG)		
Young (DET)	V275 KLINE VWV VWV064 LYNTN	
Washington Dulles (IAD)	(90–170 incl) ZZV V144 ESL V4 AML	1100-0300
	or	
	(90–170 incl) ZZV V14 MGW V44 MRB AML	1100-0300
Washington Natl (DCA)	(90–170 incl) ZZV V144 ESL V4 AML	1100-0300
DETROIT METRO AREA		
(Detroit Metro-Wayne Co & Satellites)		
Albany (ALB)	(60–170 incl) TYCOB V116 BFD V72	1100-0300
Atlantic City (ACY)	(60–170 incl) ERRTH-DP CXR YNG V6 SEG V170	
	MXE V184	1100-0300
Boston (BOS)	(60–170 incl) TYCOB V116 BFD V72 ALB V2	
	GDM	1100-0300
Buffalo (BUF)	(60–170 incl) TYCOB V90 DKK	1100-0300
Chicago Midway (MDW)	HARWL JXN V116 LEROY GSH CGT	1100-0300
Chicago O'Hare (ORD)	FWA-DP FWA KNOX-STAR	
	or	
	FWA-DP FWA WATSON (RNAV)-STAR	
	or	
	HARWL JXN V116 ELX V100 DEERE	
	or	
	GRR MKG V510 FAH BJB OBK	
Cleveland (CLE)	MAARS ACO319 HIMEZ HIMEZ-STAR	
Columbus (CMH)	CAVVS VWV FDY V279 GUNNE	1100-0300
Fort Wayne (FWA)	(60–170 incl, Props) HARWL JXN V221	1100-0300
	or	
	(60–170 incl, Jets) ANNTS DXO217 FWA071	1100-0300
Indianapolis (IND)	HARWL JXN V221 MIE V14 CLANG-STAR	1100-0300
Milwaukee (MKE)	(60–170 incl) DUNKS V170 PMM V170 PETTY	1100-0300
Montreal (CYUL)	(60–170 incl) TYCOB V116 ERI V270 ELZ V501	
	SYR MSS V203 FRANX FRANX-STAR	1100-0300
Pittsburgh (PIT)	(60–170 incl) ACO CUTTA-STAR	1100-0300
Rochester (ROC)	(60–170 incl) TYCOB YQG 098 SURLY DKK V14	
	BUF	1100-0300
Syracuse (SYR)	(60–170 incl) TYCOB V116 ERI V14 GEE V84	1100-0300
Washington Natl (DCA)	(60–170 incl) ACO AIR V75 MGW V144 ESL V4	
	MANNE	1100-0300
Westchester Co (HPN)	(60–170 incl) TYCOB V116 ERI V270 V433 V157	
	HAARP	1100-0300
	or	

Terminals	Route	Effective Times (UTC)
	(60–170 incl, props less than 250 kts) TYCOB V116 ERI V270 V433 V123 HAARP	1100–0300
FORT WAYNE (FWA)		
Moline (MLI)	V144 BDF V156 MZV	0000–2359
Rockford (RFD)	V144 SMARS V128	0000–2359
GREATER PEORIA RGNL (PIA)		
Chicago Midway (MDW)	PIA PIA056 MOTIF JOT	
Chicago O'Hare (ORD)	PIA PIA035 V10 PLANO	
INDIANAPOLIS (IND)		
Cleveland Metro Area (CLE) (CGF) (BKL)		
(LNN) (LPR)	(RNAV only/60–170 incl) DQN T000K MFD ABERZ ABERZ–STAR	
	or	
	(all others/60–170 incl) DQN MFD MFD048 ABERZ ABERZ–STAR	
Detroit Metro–Wayne Co (DTW)	FWA MIZAR–STAR	
	FWA CRUX–STAR	
Detroit Satellites:		
Ann Arbor (ARB)		
Pontiac (PTK)		
Willow Run (YIP)	FWA CRUX–STAR	
Windsor (YQG)		
Young (DET)	V275 KLINE VWV VWV051 POOFE	
Evansville (EVV)	V305	
Kansas City (MCK)	V50 SPI BQS–STAR	0000–2359
Pittsburgh (PIT)	(60–170 incl) V50 DQN V12 CTW WISKE–STAR	1100–0300
Springfield (SGF)	V11 PXV V190	0000–2359
	or	
Tulsa (TUL)	TTH BIB V72 FAM V190	0000–2359
Wichita (ICT)	V11 PXV V190 SGF V14	0000–2359
	TTH BIB V72 ENL V234 EMP V12	0000–2359
MILWAUKEE (MKE)		
Detroit Metro–Wayne Co (DTW)	(60–170 incl) SQUIB MKG POLAR–STAR	
Detroit Satellites:		
Ann Arbor (ARB)		
Pontiac (PTK)		
Willow Run (YIP)		
Windsor (YQG)		
Young (DET)	GRR LAN SPRTN–STAR	
MOLINE (MLI)		
Fort Wayne (FWA)	V156 BDF V144	0000–2359
South Bend (SBN)	V156 BDF V144 MAPPS V156	0000–2359
ROCKFORD (RFD)		
Fort Wayne (FWA)	V128 SMARS V144	0000–2359
South Bend (SBN)	V128 SMARS V144 MAPPS V156	0000–2359
SOUTH BEND (SBN)		
Moline (MLI)	V156 MAPPS V144 BDF V156 MZV	0000–2359
Rockford (RFD)	V156 MAPPS V144 SMARS V128	0000–2359
SPRINGFIELD (SPI)		
Chicago Midway (MDW)	PNT MOTIF–STAR	0000–2359
Chicago O'Hare (ORD)	PNT V227 PLANO	0000–2359
Springfield (SGF)	V50 UIN V63 SGF V14	0000–2359
Tulsa (TUL)	V50 UIN V63 SGF V14	0000–2359
TERRE HAUTE (HUF)		
Kansas City (MCK)	V50 SPI BQS–STAR	0000–2359
Springfield (SGF)	V7 PXV V190	0000–2359
Tulsa (TUL)	V7 PXV V190 SGF V14	0000–2359

SPECIAL LOW ALTITUDE DIRECTIONAL ROUTES

Route	Effective Times (UTC)
Low Altitude IFR single–direction route for traffic overflying ZOB ARTCC landing at ORD: Westbound	JXN V116 ELX V100 DEERE
Low Altitude IFR single–direction route for traffic overflying ZOB ARTCC landing at ORD: Westbound	OXI KNOX–STAR

HIGH ALTITUDE

Effective
Times
(UTC)

Terminals

Route

AKRON (CAK)

Detroit/Wayne (DTW)..... DJB DJB314 GEMNI GEMNI-STAR

CHICAGO METRO AREA (ORD, MDW)

Atlanta (ATL)..... (RNAV only) GUIDO J73 PXV BNA ERLIN
(RNAV)-STAR

or

(all others) GUIDO J73 PXV BNA ROME-STAR.....

Baltimore (BWI) GIJ J146 J34 DJB J162 MGW EMI-STAR

Birmingham (BHM) EON DNB BNA VUZ

Boca Raton (BCT) (GPS or DME/DME-IRU equipped) EON DNV TTH
SWAPP ATL J89 OTK PRRIE (RNAV)-STAR

Boston (BOS) ELX CRL J554 JHW J82 ALB GDM GDM-STAR

Bristol/Johnson/Kingsport (TRI) EON DNV VHP J24 FLM HMV

Charleston (CHS) EON DNV VHP J24 FLM

Charleston (CRW)..... EON DNV VHP J24 FLM HVQ

Charlotte (CLT) EON DNV VHP J24 FLM JOHNS (RNAV)-STAR

Chattanooga (CHA)..... EON DNV

Cincinnati (CVG)..... (RNAV only) EON DNV CEGRM (RNAV)-STAR

or

(all others) EON DNV SHELBYVILLE-STAR

Columbia (CAE)..... EON DNV VHP J24 FLM

Columbus (CMH)..... GIJ GIJ092036 FWA J178 APE

Dallas/Fort Worth (DFW) RBS STL RZC FSM BYP

Dayton (DAY) GIJ GIJ092036 FWA ROD DQJ

Denver (DEN)..... IOW DSM J10 LBF SAYGE-STAR

or

PLL PLL275065 FOD J94 ONL J114 SNY

LANDR-STAR

Detroit/Wayne (DTW)..... PETTY MKG POLAR-STAR

Evansville (EVV) GUIDO

Fort Lauderdale (FLL)..... GUIDO J73 SZW J43 PIE FORTL-STAR

or

EON DNV TTH SWAPP ATL J89 HITTR PIE

FORTL-STAR

or

(GPS or DME/DME-IRU equipped) EON DNV TTH

SWAPP ATL J89 OTK JINGL (RNAV)-STAR

Greensboro (GSO)..... EON DNV VHP J24 FLM

Greer (GSP) EON DNV VHP J24 FLM SOT SUG V185 UNMAN ...

Harrisburg (MDT)..... GIJ J146 J34 DJB J518 J152 HAR

Huntsville (HSV)..... EON DNV

Jacksonville (JAX)..... EON DNV TTH SWAPP ATL AMG ALMA-STAR

Kennedy (JFK)..... ELX CRL J554 JHW J70 LVZ LENDY-STAR

Knoxville (TYS)..... EON DNV VHP J24 FLM J43 XVV

La Guardia (LGA)..... GIJ J146 MIP MIP-STAR

Memphis (MEM)..... RBS FAM ARG GQE-STAR

or

GUIDO J73 PXV WLDER-STAR

Miami (MIA)..... GUIDO J73 SZW J43 PIE CYY-STAR

or

(Turbojets-GPS or DME/DME-IRU equipped) EON

DNV TTH SWAPP ATL SZW SSCOT

(RNAV)-STAR

Myrtle Beach (MYR)..... EON DNV VHP J24 FLM

Nashville (BNA)..... EON DNV TTH HEHAW-STAR

Newark (EWR)..... ELX CRL J584 SLT FQM-STAR

Norfolk (ORF)..... EON DNV VHP J24 MOL TERKS-STAR

Oakland (OAK) PLL PLL275065 FOD J94 ONL J148 OAL MOD

or

PLL PLL275065 FOD J94 LCU J158 MVA.....

1500-0400

Terminals	Route	Effective Times (UTC)
Orlando Exec (ORL)	EON DNV TTH BWG GQO ATL J89 OTK LEESE-STAR	
Orlando Intl (MCO)	EON DNV TTH SWAPP ATL J89 OTK LEESE-STAR ..	
Philadelphia (PHL)	GIJ J146 CXR EWC JST BUNTS-STAR	
Phoenix (PHX)	MZV STJ J18 FTI J19 ZUN BUNTR-STAR	1200-0400
	or	
Pittsburgh (PIT)	IOW J192 PWE J64 PUB ALS J102	
Pottstown (PTW)	GIJ J146 J34 DJB ACO V337 CUTTA	
Raleigh-Durham (RDU)	GIJ J146 CXR EWC JST	
Richmond (RIC)	EON DNV VHP J24 FLM BKW ROA SBV-STAR	
Roanoke (ROA)	EON DNV VHP J24 FLM	
St. Petersburg-Clearwater (PIE)	GUIDO J73 SZW DARBS-STAR	
San Francisco (SFO)	PLL PLL275065 FOD J94 FMG ILA PYE	1500-0400
San Jose (SJC)	PLL PLL275065 FOD J94 FMG HYP-STAR	
	or	
Sarasota/Bradenton (SRQ)	DBQ J94 LCU HYP-STAR	1500-0400
Tampa (TPA)	GUIDO J73 PXV J73 SZW CLAMP-STAR	
	GUIDO J73 PXV J73 SZW DARBS-STAR	
	or	
	(GPS or DME/DME-IRU equipped) GUIDO J73 PXV J73 SZW FOXX (RNAV)-STAR	
Toledo (TOL)	GIJ J146 PLAIN VWV	
Washington Dulles (IAD)	GIJ J146 J34 BUCKO-STAR	
Washington Natl (DCA)	GIJ J146 J34 SHAAR WZRRD-STAR	
	or	
	(GPS or DME/DME-IRU equipped) GIJ J146 J34 BUCKO ELDEE (RNAV)-STAR	
	or	
West Palm Beach (PBI)	GIJ J146 J34 SHAAR ELDEE (RNAV)-STAR	
	(all others) EON DNV TTH SWAPP ATL OTK WLACE (RNAV)-STAR	
	or	
	(GPS or DME/DME-IRU equipped) DENNT DARCY DREGS DUMGE SWAPP ATL J89 OTK WLACE (RNAV)-STAR	
	or	
	(GPS or DME/DME-IRU equipped) EON DNV TTH IIU J99 VXV J43 WLACE (RNAV)-STAR	
	or	
	(all others) ORD EON DNV TTH SWAPP ATL OTK WLACE (RNAV)-STAR	
Windsor Locks (BDL)	ELX CRL J554 JHW J82 WILET RKA292 RKA SWEDE-STAR	
CHICAGO Midway (MDW) only		
Albany (ALB)	LEWKE GIJ EVOTE NELLS KEEHO JHW J82	
Allentown (ABE)	LEWKE GIJ J146 FJC	
Atlanta (ATL)	CMSKY CARYN CYBIL PXV J73 BNA ROME-STAR ..	
	or	
	CMSKY CARYN CYBIL PXV BNA ERLIN (RNAV)-STAR	
Baltimore (BWI)	LEWKE GIJ OTENS ANEWA RIEKE DJB J34 AIR KEMAN WESTMINSTER-STAR	
Birmingham (BHM)	CMSKY CARYN CYBIL PXV	
Bristol/Johnson/Kingsport (TRI)	EARND ELANR EMMLY ETAME EMEGE FLM	
Boca Raton (BCT)	(GPS or DME/DME-IRU equipped) GUIDO J73 SZW PRRIE (RNAV)-STAR	
	or	
	(GPS or DME/DME-IRU equipped) EON DNV TTH SWAPP ATL J89 OTK PRRIE (RNAV)-STAR	
	or	
	(GPS or DME/DME-IRU equipped) DENNT DARCY DREGS DUMGE SWAPP ATL J89 OTK PRRIE (RNAV)-STAR	
Boston (BOS)	LEWKE GIJ EVOTE NELLS KEEHO JHW J82 ALB GARDNER-STAR	

Terminals	Route	Effective Times (UTC)
Buffalo (BUF)	LEWKE GIJ EVOTE NELLs KEEHO DKK	
Charleston (CHS, CRW)	EARND ELANR EMMLY ETAME EMEGE FLM	
Charlotte (CLT)	EARND ELANR EMMLY ETAME FLM JOHNS (RNAV)-STAR	
Chattanooga (CHA)	DENNT DARCY DREGS DONVE BWG	
Cincinnati (CVG)	DENNT DARCY DNV CEGRM (RNAV)-STAR	
	or	
	DENNT DARCY DNV SHB-STAR	
Cleveland (CLE)	ELX CRL HIMEZ-STAR	
	or	
	LEWKE GIJ CRL HIMEZ-STAR	
Columbia (CAE)	EARND ELANR EMMLY ETAME EMEGE FLM	
Columbus (CMH)	LEWKE GIJ SEWTO FWA GUNNE-STAR	
Dallas/Fort Worth (DFW)	ACITO ADELL ARLYN STL RZC FSM BONHAM-STAR	
Detroit Metro-Wayne Co (DTW)	GIJ LFD MIZAR-STAR	
Detroit Metro Area (ARB, PTK, YIP)	GIJ LFD CRUX-STAR	
Detroit Metro Area (DET, CYQG)	GIJ LAN SPRTN-STAR	1200-0400
Evansville (EVV)	DENNT DARCY DREGS DONVE	
Fort Lauderdale (FLL)	DENNT DARCY DREGS DUMGE SWAPP ATL J89 OTK JINGL (RNAV)-STAR	
	or	
	(GPS or DME/DME-IRU equipped) DENNT DARCY DREGS DUMGE SWAPP ATL J89 OTK JINGL (RNAV)-STAR	
	or	
	EON DNV TTH IIU J99 VXX J46 AMG TAY JINGL (RNAV)-STAR	
	or	
	(GPS or DME/DME-IRU equipped) EON DNV TTH SWAPP ATL J89 OTK JINGL (RNAV)-STAR	
Fort Myers (RSW)	CMSKY CARYN CYBIL PXV J73 SZW TYNEE (RNAV)-STAR	
	or	
	(GPS or DME/DME-IRU equipped) GUIDO J73 PXV J73 SZW TYNEE (RNAV)-STAR	
Greensboro (GSO)	EARND ELANR EMMLY ETAME FLM PSK SMOKN-STAR	
Greenville-Spartanburg (GSP)	EARND ELANR EMMLY ERECO IIU	
Houston (HOU)	(GPS or DME/DME-IRU equipped) BACEN BLOKR BEKKI FAM J137 LIT J180 SWB ROKIT (RNAV)-STAR	
	or	
	(Non-advanced NAV only) BACEN BLOKR BEKKI FAM J137 LIT J180 SWB DAS-STAR	
Houston (IAH)	(Turbojets-GPS or DME/DME-IRU equipped) BACEN BLOKR BEKKI FAM J137 LIT J180 SWB TXMEX (RNAV)-STAR	
	or	
	(Non-advanced NAV only) BACEN BLOKR BEKKI FAM J137 LIT J180 SWB DAS-STAR	
Huntsville (HSV)	DENNT DARCY DREGS DONVE BWG	
Islip (ISP)	LEWKE GIJ EVOTE NELLs KEEHO JHW J70 STW LENDY	
Jacksonville (JAX)	DENNT DARCY DREGS DUMGE SWAPP AMG ALMA-STAR	
La Guardia (LGA)	LEWKE GIJ J146 ETG MILTON-STAR	
Memphis (MEM)	BACEN BLOKR BEKKI FAM ARG GILMORE-STAR ... or	
	CMSKY CARYN CYBIL PXV WLDER-STAR	
Miami (MIA)	DENNT DARCY DREGS DUMGE SWAPP ATL SZW J43 PIE CYPRESS-STAR	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped) DENNT DARCY DREGS DUMGE SWAPP ATL SZW J86 OTK SSCOT (RNAV)-STAR	

PREFERRED IFR ROUTES

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Terminals	Route	Effective Times (UTC)
	or (Turbojets-GPS or DME/DME-IRU equipped) GUIDO J73 SZW SSCOT (RNAV)-STAR.....	
	or (Turbojets-GPS or DME/DME-IRU equipped) EON DNV TTH IJU J99 VXV J46 AMG TAY SSCOT (RNAV)-STAR.....	
	or EON DNV TTH SWAPP ATL SZW J43 PIE CYPRESS-STAR	
Minneapolis (MSP)	BAE EAU-STAR	1200-0400
Manchester (MHT).....	LEWKE GIJ EVOTE NELS KEEHO JHW J82 ALB EEN.....	
Nashville (BNA).....	CMSKY CARYN CYBIL PXV CCT HEHAW-STAR	
Newark (EWR).....	LEWKE GIJ EVOTE NELS KEEHO J584 SLT FQM WILLIAMSPORT-STAR	
New Orleans (MSY)	BACEN BLOKR BEKKI ENL J71 MEM J35 MCB RYTHM-STAR	
Norfolk (ORF).....	EARND ELANR EMMLY ETAME EMEGE FLM J24 MOL TERKS-STAR	
Orlando (MCO/ORL)	DENNT DARCY DREGS DUMGE SWAPP ATL J89 OTK PIGLT (RNAV)-STAR	
	or DENNT DARCY DREGS DUMGE SWAPP ATL J89 OTK LEESE-STAR.....	1100-0400
Phoenix (PHX).....	MZV J18 FTI J19 ZUN EAGUL (RNAV)-STAR.....	1200-0400
	or MZV LMN J64 HLC LAA J102 GUP EAGUL (RNAV)-STAR.....	
Philadelphia (PHL).....	LEWKE GIJ J146 CXR EWC JST BUNTS-STAR	
Pittsburgh (PIT).....	LEWKE GIJ OTENS ANEWA RIEKE DJB ACO CUTTA-STAR	
Providence (PVD)	LEWKE GIJ EVOTE NELS KEEHO JHW J82 MEMMS J522 HNK TEDDY	
Raleigh/Durham (RDU)	EARND ELANR EMMLY ETAME EMEGE FLM BKW ROA SOUTH BOSTON-STAR	
Richmond (RIC).....	EARND ELANR ETAME EMEGE FLM J24 FAK	
Rochester (ROC).....	LEWKE GIJ EVOTE NELS KEEHO DKK BUF	
Saint Petersburg/Clearwater (PIE).....	CMSKY CARYN CYBIL PXV J73 SZW DARBS-STAR.....	
Sarasota/Bradenton (SRQ)	CMSKY CARYN CYBIL PXV J73 SZW CLAMP-STAR	
Tampa (TPA).....	CMSKY CARYN CYBIL PXV J73 SZW FOOXX (RNAV)-STAR.....	
	or CMSKY CARYN CYBIL PXV J73 SZW DARBS-STAR.....	
Teterboro (TEB).....	LEWKE GIJ EVOTE NELS KEEHO JHW J70 LVZ WILKES BARRE-STAR	
Trenton (TTN)	LEWKE GIJ J146 CXR EWC JST BUNTS-STAR	
Washington Dulles (IAD)	LEWKE GIJ OTENS ANEWA RIEKE DJB J34 AIR MGW MGW121 VERNI ESL ROYIL-STAR	
	or (GPS or DME/DME-IRU equipped) LEWKE GIJ OTENS ANEWA RIEKE DJB J34 AIR MGW VERNI ESL SHNON (RNAV)-STAR	
Washington Natl (DCA)	(GPS or DME/DME-IRU equipped) GIJ J146 J34 BUCKO ELDEE (RNAV)-STAR.....	
	or LEWKE GIJ OTENS ANEWA RIEKE DJB J34 SHAAR WZRRD-STAR	
	or (GPS or DME/DME-IRU equipped) LEWKE GIJ OTENS ANEWA RIEKE DJB J34 SHAAR ELDEE (RNAV)-STAR.....	
White Plains (HPN)	LEWKE GIJ EVOTE NELS KEEHO JHW ITH DNY VALRE-STAR	

Terminals	Route	
Windsor Locks (BDL)	LEWKE GIJ EVOTE NELLIS KEEHO JHW J82 WILET SWEDE-STAR	
CHICAGO O'Hare (ORD) only		
Akron (CAK)	MOBLE ADIME OTENS VWV MFD V8 DALTS	
Albany (ALB)	EBAKE WISMO POSTS PADDE SVM DKK	
Allentown (ABE)	MOBLE ADIME GERBS J146 MIP	
Andrews AFB (ADW)	MOBLE ADIME OTENS ANEWA RIEKE DJB J34 SHAAR WZRRD-STAR	
Atlanta (ATL)	CMSKY CARYN CYBIL PXV J73 BNA ROME-STAR .. or CMSKY CARYN CYBIL PXV BNA ERLIN (RNAV)-STAR	
Atlantic City (ACY)	MOBLE ADIME GERBS J146 CXR EWC JST J152 HAR SIE	
Baltimore (BWI)	MOBLE ADIME OTENS ANEWA RIEKE DJB J34 AIR KEMAN WESTMINSTER-STAR	
Bedford (BED)	EBAKE WISMO POSTS PADDE SVM DKK ALB GDM V431 LOBBY	
Birmingham (BHM)	CMSKY CARYN CYBIL PXV	
Boca Raton (BCT)	(GPS or DME/DME-IRU equipped) GUIDO J73 SZW PRRIE (RNAV)-STAR	
	or (GPS or DME/DME-IRU equipped) EON DNV TTH SWAPP ATL J89 PRRIE (RNAV)-STAR	
	or (GPS or DME/DME-IRU equipped) DENNT DARCY DREGS DUMGE SWAPP ATL J89 OTK PRRIE (RNAV)-STAR	
Boston (BOS)	EBAKE WISMO POSTS PADDE SVM DKK ALB GARDNER-STAR	
Bristol/Johnson/Kingsport (TRI)	EARND ELANR EMMLY ETAME EMEGE FLM	
Buffalo (BUF)	DUFEE ELX HAAKK DOXXY SOSIC COHOW DKK	
Burlington (BTV)	EBAKE WISMO POSTS PADDE SVM DKK SYR J29 LAGGS	
Charleston (CHS, CRW)	EARND ELANR EMMLY ETAME EMEGE FLM	
Charlotte (CLT)	EARND ELANR EMMLY ETAME FLM JOHNS (RNAV)-STAR	
Chattanooga (CHA)	DENNT DARCY DREGS DONVE BWG	
Cincinnati (CVG)	DENNT DARCY DNV CEGRM (RNAV)-STAR	
	or DENNT DARCY DNV SHELBYVILLE-STAR	
Cleveland (CLE)	DUFEE ELX HIMEZ-STAR	
Columbia (CAE)	EARND ELANR EMMLY ETAME EMEGE FLM	
Columbus (CMH)	MOBLE ADIME SEWTO FWA GUNNE-STAR	
Dallas/Fort Worth (DFW)	ACITO ADELL ARLYN STL RZC FSM BONHAM-STAR	
Denver (DEN)	IOW DSM J10 LBF SAYGE-STAR	
	or DBQ J94 ONL J114 SNY LANDR-STAR	
Detroit Metro-Wayne Co (DTW)	PETTY MKG POLAR-STAR	
Detroit Metro Area (DET, CYQG, PTK, YIP, ARB)	PETTY GRR LAN SPRTN-STAR	1200-0400
Evansville (EVV)	DENNT DARCY DREGS DONVE	
Fort Lauderdale (FLL)	DENNT DARCY DREGS DUMGE SWAPP ATL J89 OTK JINGL (RNAV)-STAR	
	or DENNT DARCY DREGS SWAPP ATL J89 OTK JINGL (RNAV)-STAR	
	(GPS or DME/DME-IRU equipped) EON DNV TTH IIU J99 VXV J46 AMU TAY JINGL (RNAV)-STAR ..	
Fort Myers (RSW)	(GPS or DME/DME-IRU equipped) CMSKY CARYN CYBIL PXV J73 SZW TYNEE (RNAV)-STAR	
	or (GPS or DME/DME-IRU equipped) GUIDO J73 PXV J73 SZW TYNEE (RNAV)-STAR	
Greensboro (GSO)	EARND ELANR EMMLY ETAME EMEGE FLM PSK SMOKN-STAR	

Terminals	Route	Effective Times (UTC)
Greenville/Spartanburg (GSP).....	EARND ELANR EMMLY ERECO IIU	
Harrisburg (MDT).....	MOBLE ADIME GERBS J146 CXR EWC HAR	
Houston (HOU)	(GPS or DME/DME-IRU equipped) BACEN BLOKR BEKKI FAM J137 LIT J180 SWB ROKIT (RNAV)-STAR	
	or	
	(Non-advanced NAV only) BACEN BLOKR BEKKI FAM J137 LIT J180 SWB DAS-STAR	
Houston (IAH)	(Turbojets-GPS or DME/DME-IRU equipped) BACEN BLOKR BEKKI FAM J137 LIT J180 SWB TXMEX (RNAV)-STAR	
	or	
	(Non-advanced NAV only) BACEN BLOKR BEKKI FAM J137 LIT J180 SWB DAS-STAR	
Huntsville (HSV).....	DENNT DARCY DREGS DONVE BWG	
Hyannis (HYA).....	EBAKE WISMO POSTS PADDE SVM DKK ALB ENE LFV	
Indianapolis (IND)	EARND ELANR EMMLY JAKKS	
Jacksonville (JAX).....	DENNT DARCY DREGS DUMGE SWAPP ATL AMG ALMA-STAR.....	
Kennedy (JFK).....	DUFEE ELX HAAKK DOXXY SOSIC JHW J70 LVZ LENDY-STAR	
Knoxville (TYS).....	EARND ELANR EMMLY ETAME EMEGE J43 VXV ...	
La Guardia (LGA).....	MOBLE ADIME GERBS J146 ETG MILTON-STAR ...	
Louisville (LOU)	DENNT DARCY DREGS DUMGE CHERI	
Manchester (MHT).....	EBAKE WISMO POSTS PADDE SVM DKK ALB EEN .	
Memphis (MEM).....	BACEN BLOKR BEKKI FAM ARG GILMORE-STAR ... or	
	CMSKY CARYN CYBIL PXV WLDER-STAR	
Miami (MIA).....	DENNT DARCY DREGS DUMGE SWAPP ATL SZW J43 PIE CYPRESS-STAR.....	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped) DENNT DARCY DREGS DUMGE SWAPP ATL J89 SSCOT (RNAV)-STAR	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped) GUIDO J73 SZW SSCOT (RNAV)-STAR	
	or	
	(Turbojets-GPS or DME/DME-IRU equipped) EON DNV TTH IIU J99 VXV J46 AMG TAY SSCOT (RNAV)-STAR.....	
	or	
	EON DNV TTH SWAPP ATL SZW J43 PIE CYY-STAR	
Minneapolis (MSP)	PLL PLL275065 ALO KASPR-STAR	1200-0400
Nashville (BNA).....	CMSKY CARYN CYBIL PXV CCT HEHAW-STAR	
Niagara Falls (IAG)	EBAKE WISMO POSTS PADDE SVM YXU	
Newark (EWR).....	DUFEE ELX HAAKK DOXXY SOSIC KEEHO J584 SLT FQM WILLIAMSPORT-STAR	
New Orleans (MSY)	BACEN BLOKR BEKKI ENL J71 MEM J35 MCB RHYTHM-STAR	
	or	
	EARND ELANR EMMLY ERECO IIU RYANS	
Norfolk (ORF).....	EARND ELANR EMMLY ETAME EMEGE FLM J24 MOL TERKS-STAR	
Newburgh (SWF).....	DUFEE ELX HAAKK DOXXY SOSIC JHW ITH DNY V483 FILPS	
New Haven (HVN).....	DUFEE ELX HAAKK DOXXY SOSIC JHW RKA DENNA-STAR.....	

Terminals	Route	Effective Times (UTC)
Orlando (MCO/ORL)	DENNT DARCY DREGS DUMGE SWAPP ATL J89 OTK PIGLT (RNAV)-STAR	
	or	
	DENNT DARCY DREGS DUMGE SWAPP ATL LEESE-STAR	
	or	
	DENNT DARCY DREGS DUMGE SWAPP ATL J89 OTK LEESE-STAR	1100-0400
Philadelphia (PHL)	MOBLE ADIME GERBS J146 CXR EWC JST BUNTS-STAR	
Phoenix (PHX)	MZV J18 FTI J19 ZUN EAGUL (RNAV)-STAR	1200-0400
	or	
	MZV LMN J64 HLC LAA J102 GUP EAGUL (RNAV)-STAR	
Pittsburgh (PIT)	MOBLE ADIME OTENS ANEWA RIEKE DJB ACO CUTTA-STAR	
Portland (PWM)	EBAKE WISMO POSTS PADDE SVM DKK ALB CON PARSO	
	or	
	MOBLE ADIME GERBS J146 CXR EWC JST SIE	
Providence (PVD)	DUFEE ELX HAAKK DOXXY SOSIC JHW J82 MEMMS J522 HNK TEDDY-STAR	
Raleigh/Durham (RDU)	EARND ELANR EMMLY ETAME EMEGE FLM BKW ROA SOUTH BOSTON-STAR	
Richmond (RIC)	EARND ELANR EMMLY ETAME EMEGE FLM J24 FAK	
Roanoke (ROA)	EARND ELANR EMMLY ETAME EMEGE FLM	
Rochester (ROC)	DUFEE ELX HAAKK DOXXY SOSIC COHOW DKK BUF	
Saint Petersburg/Clearwater (PIE)	CMSKY CARYN CYBIL PXV J73 SZW DARBS-STAR	
	or	
	MOBLE ADIME GERBS J146 CXR EWC JST SIE	
San Juan (TJSJ)	CMSKY CARYN CYBIL PXV J73 SZW CLAMP-STAR	
Sarasota/Bradenton (SRQ)	EBAKE WISMO POSTS PADDE SVM DKK	
Syracuse (SYR)	CMSKY CARYN CYBIL PXV J73 SZW DARBS-STAR	
	or	
	CMSKY CARYN CYBIL PXV J73 SZW FOXXX (RNAV)-STAR	
Washington Dulles (IAD)	MOBLE ADIME OTENS ANEWA RIEKE DJB J34 AIR MGW MGW121 VERNI ESL ROYIL-STAR	
	or	
	(GPS or DME/DME-IRU equipped) MOBLE ADIME OTENS ANEWA RIEKE DJB J34 AIR MGW VERNI ESL SHNON (RNAV)-STAR	
Washington Natl (DCA)	MOBLE ADIME OTENS ANEWA RIEKE DJB J34 BUCKO BUCKO-STAR	
	or	
	MOBLE ADIME OTENS ANEWA RIEKE DJB J34 SHAAR WZRRD-STAR	
	or	
	(GPS OR DME/DME-IRU equipped) MOBLE ADIME OTENS ANEWA RIEKE DJB J34 SHAAR ELDEE (RNAV)-STAR	
White Plains (HPN)	DUFEE ELX HAAKK DOXXY SOSIC JHW ITH DNY VALRE-STAR	
Wilkes-Barre/Scranton (AVP)	DUFEE ELX HAAKK DOXXY SOSIC JHW J106 LVZ ..	
Windsor Locks (BDL)	DUFEE ELX HAAKK DOXXY SOSIC JHW J82 WILET SWEDE-STAR	
CINCINNATI (CVG)		
Albany (ALB)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB	
Allentown (ABE)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY JST HAR	

Terminals	Route	Effective Times (UTC)
Atlanta (ATL)	(RNAV only) BLUEGRASS-DP BWG ERLIN (RNAV)-STAR	
	or	
	(all others) BLUEGRASS-DP BWG ROME-STAR....	
Baltimore (BWI)	V128 YRK HVQ J8 CSN OTT-STAR	
	or	
	(GPS or DME/DME-IRU equipped) V128 YRK HVQ	
	J8 CSN RAVNN (RNAV)-STAR	
Birmingham (BHM)	BLUEGRASS-DP TRFWA LVT SYI VUZ	
Boca Raton (BCT)	(GPS or DME/DME-IRU equipped)	
	BLUEGRASS-DP TRFWA NOTWO WALET HITTR	
	LATHY PRRIE (RNAV)-STAR	
	or	
	(GPS or DME/DME-IRU equipped)	
	BLUEGRASS-DP HYK VXV J43 ATL J89 OTK	
	PRRIE (RNAV)-STAR	
Boston (BOS)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE	
	AHTIY PSB HNK ALB GDM GARDNER-STAR	
Chicago O'Hare (ORD)	(Advanced Nav only) MIE MZZ ROYKO-STAR	
	or	
	(Non-Advanced Nav only) DQN FWA KNOX-STAR ..	
	or	
	DQN FWA WATSN (RNAV)-STAR	
Dallas/Fort Worth (DFW)	IU PVX J131 LIT BYP	
Fort Lauderdale (FLL)	(GPS or DME/DME-IRU equipped)	
	BLUEGRASS-DP TRFWA NOTWO OTK JINGL	
	(RNAV)-STAR	
	or	
	(all others) BLUEGRASS-DP HYK VXV J43 ATL J89	
	HITTR J75 FORTL-STAR	
Fort Myers (FMY)	(Turbojets-GPS or DME/DME-IRU equipped) HYK	
	VXV J43 SZW TYNEE (RNAV)-STAR	
Fort Myers (RSW)	(GPS or DME/DME-IRU equipped) HYK VXV J43	
	SZW TYNEE (RNAV)-STAR	1100-0300
Harrisburg (MDT)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE	
	AHTIY JST HAR	
Houston (HOU)	(GPS or DME/DME-IRU equipped) LIT J180 SWB	
	ROKIT (RNAV)-STAR	
	or	
	(Non-advanced NAV only) LIT J180 SWB	
	DAS-STAR	
Houston (IAH)	(Turbojets-GPS or DME/DME-IRU equipped) LIT	
	J180 SWB TXMEX (RNAV)-STAR	
	or	
	(Non-advanced NAV only) LIT J180 SWB	
	DAS-STAR	
Jackson (JAN)	BLUEGRASS-DP TRFWA LVT SYI VUZ JAN	
La Guardia (LGA)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE	
	AHTIY PSB MILTON-STAR	1000-1800
Manchester (MHT)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE	
	AHTIY PSB ALB EEN	
Marco Island (MKY)	HYK VXV J43 SZW PIKKR (RNAV)-STAR	
Miami (MIA)	(Turbojets-GPS or DME/DME-IRU equipped)	
	BLUEGRASS-DP TRFWA NOTWO SZW SSCOT	
	(RNAV)-STAR	
	or	
	(all others) BLUEGRASS-DP HYK VXV J43 ATL	
	SZW J43 PIE CYY-STAR	
Mobile (MOB)	BLUEGRASS-DP TRFWA LVT SYI VUZ SJI	
Naples (APF)	HYK VXV J43 SZW PIKKR (RNAV)-STAR	
Newark (EWR)	ROD J29 J584 SLT FQM-STAR	
Newburg (SWF)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE	
	AHTIY PSB J49 HNK DNY V483 FILPS	
New Orleans (MSY)	BLUEGRASS-DP TRFWA LVT SYI VUZ J22 MEI	
	RYTHM-STAR	
Orlando Exec (ORL)	HYK VXV J99 IRQ J85 AMG LEESE-STAR	1100-0300

Terminals	Route	Effective Times (UTC)
	or (GPS or DME/DME-IRU equipped) HYK VXV J99 IRQ J85 AMG SHEMP MTATA PIGLT (RNAV)-STAR	1100-0400
Orlando Intl (MCO)	HYK VXV J99 IRQ J85 AMG LEESE-STAR	1100-0300
	or (GPS or DME/DME-IRU equipped) HYK VXV J99 IRQ J85 AMG BUGGZ (RNAV)-STAR	1100-0400
Philadelphia (PHL)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY JST BUNTS-STAR	
Phoenix (PHX)	FAM J78 ABQ J18	
	or FAM J78 IRW J74 SJN J18	
Portland (PWM)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB J49 ALB ENE	
Providence (PVD)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB J49 HNK TEDDY-STAR	
Sarasota/Bradenton (SRQ)	HYK VXV J43 SZW CLAMP-STAR	
Tampa (TPA)	HYK VXV J43 SZW DARBS-STAR	
	or (GPS or DME/DME-IRU equipped) HYK VXV J43 SZW FOXXX (RNAV)-STAR	
Washington Dulles (IAD)	V128 YRK HVQ ROYIL-STAR	
	or V128 YRK HVQ SHNON (RNAV)-STAR	
Washington Natl (DCA)	V128 YRK HVQ WZRRD-STAR	
	or V128 YRK HVQ ELDEE (RNAV)-STAR	
West Palm Beach (PBI)	(GPS OR DME/DME-IRU equipped) BLUEGRASS-DP TRFWA NOTWO OTK WLACE	
	or (GPS or DME/DME-IRU equipped) BLUEGRASS-DP HYK VXV J43 ATL J89 OTK WLACE	
Wilkes Barre/Scranton (AVP)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB LVZ	
Windsor Locks (BDL)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB RKA SWEDE SWEDE-STAR	
From LUNKEN (LUK) only:		
Albany (ALB)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB	
Boston (BOS)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB HNK ALB GDM GARDNER-STAR	
La Guardia (LGA)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB MILTON-STAR	1000-1800
Manchester (MHT)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB ALB EEN	
Newburgh (SWF)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB J49 HNK DNV V483 FILPS	
Philadelphia (PHL)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY JST BUNTS-STAR	
Providence (PVD)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB J49 HNK TEDDY-STAR	
Portland (PWM)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB J49 ALB ENE	
Wilkes Barre/Scranton (AVP)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB LVZ	
Windsor Locks (BDL)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB RKA SWEDE SWEDE-STAR	
CLEVELAND METRO (CLE, CGF, BKL, LNN, LPR)		
Atlanta (ATL)	(RNAV only) DJB DJB173 HERAK APE035 APE J186 SOT ODF FLCON (RNAV)-STAR	
	or (all others) DJB DJB173 HERAK APE035 APE J186 SOT ODF WHINZ-STAR	

Effective
Times
(UTC)

Terminals	Route
Battle Creek (BTL)	AMRST-DP VWV
Birmingham (BHM)	DJB DJB173 HERAK APE035 APE J186 BULEY
Boca Raton (BCT)	(GPS or DME/DME-IRU equipped) DJB DJB173 HERAK APE035 APE J83 SPA J85 TAY PRRIE (RNAV)-STAR
Charleston (CHS)	DJB DJB173 HERAK APE035 APE J186 BULEY
Charleston (CRW)	DJB DJB173 HERAK APE035 APE
Charlotte (CLT)	DJB DJB173 HERAK APE035 APE HVQ HMV JOHNS (RNAV)-STAR
Chicago Midway (MDW)	AMRST-DP VWV GSH GSH-STAR
Chicago O'Hare (ORD)	AMRST-DP VWV ZANLA WATSON (RNAV)-STAR
	or
Chicago Rockford (RFD)	AMRST-DP VWV OXI KNOX-STAR
Cincinnati (CVG)	ALPHE-DP ALPHE J70 PMM
	(RNAV only) DJB HERAK APE TIGRR (RNAV)-STAR
	or
	(all others) DJB DJB173 HERAK APE035 APE CINCE-STAR
Dallas/Fort Worth (DFW)	OBRNL-DP RID RID234/40 PXV LIT BONHAM-STAR
Denver (DEN)	AMRST-DP VWV GSH
Elkhart (EKM)	AMRST-DP VWV GSH
Fort Lauderdale (FLL)	DJB DJB173 HERAK APE035 APE J83 SPA J85 TAY J75 HITTR PIE FORTL-STAR
	or
	(GPS or DME/DME-IRU equipped) DJB DJB173 HERAK APE035 APE J83 SPA J85 TAY J75 JINGL (RNAV)-STAR
Fort Myers (FMY)	DJB DJB200 APE021 APE J186 J91 VXV J43 SZW TYNEE (RNAV)-STAR
Fort Myers (RSW)	(GPS OR DME/DME-IRU equipped) DJB DJB173 HERAK APE035 APE J186 J91 VXV J43 SZW TYNEE (RNAV)-STAR
Fort Wayne (FWA)	OBRNL-DP FWA
Grand Rapids (GRR)	(RNAV only) ALPHE-DP ALPHE
Greensboro (GSO)	DJB DJB173 HERAK APE035 APE J186 BULEY
Houston (HOU)	(GPS or DME/DME-IRU equipped) OBRNL-DP RID RID234/40 PXV LIT J180 SWB ROKIT (RNAV)-STAR
	or
	(Non-advanced NAV only) OBRNL-DP RID RID234/40 PXV LIT J180 SWB DAS-STAR
Houston (IAH)	(Non-advanced NAV only) OBRNL-DP RID RID234/40 PXV LIT J80 SWB DAS-STAR
	or
	(Turbojets-GPS or DME/DME-IRU equipped) OBRNL-DP RID234/40 PXV LIT J180 SWB TXMEX (RNAV)-STAR
Jacksonville (JAX)	DJB DJB173 HERAK APE035 APE J83 SPA J85 AMG ALM-STAR
Kalamazoo/Battle Creek (AZO)	AMRST-DP VWV
Kansas City (MCI)	OBRNL-DP VHP J80 SPI BRAYMER-STAR
Kennedy (JFK)	FAILS V522 ERI JHW J70 LVZ LENDY-STAR
La Guardia (LGA)	V522 FAILS V188 JFN ETG MIP-STAR
Knoxville (TYS)	DJB DJB173 HERAK APE035 APE J186 BULEY
Las Vegas (LAS)	OBRNL-DP VHP STL
	or
	AMRST-DP VWV GSH
Lewisburg (LWB)	DJB DJB173 HERAK APE035 APE
Lexington (LEX)	OBRNL-DP ROD CVG CLEGG-STAR
Little Rock (LIT)	OBRNL-DP RID RID234/40 PXV
Los Angeles (LAX)	AMRST-DP VWV GSH
Louisville (SDF)	OBRNL-DP ROD CVG REDSTONE-STAR

Terminals	Route	Effective Times (UTC)
Minneapolis (MSP)	(RNAV only) ALPHE-DP ALPHE J70 PMM BAE EAU-STAR	
	or	
	AMRST-DP CRL J34 BAE EAU-STAR	
Madison (MSN)	(RNAV only) ALPHE-DP ALPHE J70 PMM	
Marco Island (MKY)	DJB DJB200 APE021 APE J186 J91 VXV J43 SZW PIKKR (RNAV)-STAR	
	or	
	DJB DJB200 APE021 APE J186 J91 ATL J89 J75 TEPEE ZEILR-STAR	
Memphis (MEM)	OBRLN-DP RID RID234/40 PXV WLDER-STAR	
Miami (MIA)	DJB DJB173 HERAK APE035 APE J83 SPA J85 TAY J75 HITTR PIE CYPRESS-STAR	
	or	
	(/E/G/R/J/L/Q only) DJB DJB173 HERAK APE035 APE J83 SPA J85 TAY J75 RSW DEEDS (RNAV)-STAR	
Milwaukee (MKE)	AMRST-DP CRL CRL316/75 MKG V2 SUDDS	
Myrtle Beach (MYR)	DJB DJB173 HERAK APE035 APE	
Naples (APF)	DJB DJB200 APE021 APE J186 J91 VXV J43 SZW PIKKR (RNAV)-STAR	
Nashville (BNA)	OBRLN-DP IIU GUITR-STAR	
Newark (EWR)	V522 J584 SLT FQM-STAR	
New Orleans (MSY)	OBRLN-DP RID IIU MCB RYTHM-STAR	
Orlando (ORL)	(RADAR and DME required) DJB DJB200 APE021 APE J83 SPA CAE SAV OMN CORLL-STAR	1100-0400
Orlando (MCO)	DJB DJB173 HERAK APE035 APE J83 SPA CAE SAV OMN BITHO-STAR	
	or	
	(GPS or DME/DME-IRU equipped) DJB DJB173 HERAK APE035 APE J83 SPA CAE SAV OMN CWRLD (RNAV)-STAR	1100-0400
Palwaukee (PWK)	(RNAV only) ALPHE-DP ALPHE J70 PMM OBK	
Philadelphia (PHL)	ACO ACO145 J518 J152 HAR V210 BUNTS	
Phoenix (PHX)	OBRLN-DP VHP STL	
	or	
	AMRST-DP VWV GSH	
Raleigh/Durham (RDU)	DJB DJB173 HERAK APE035 APE HVQ BKW ROA SOUTH- BOSTON-STAR	
San Antonio (SAT)	OBRLN-DP RID RID234/40 PXV J131 LIT J101 LFK MARCS-STAR	
San Francisco (SFO)	AMRST-DP VWV GSH	
St. Louis (STL)	OBRLN-DP VHP VANDALIA-STAR	
Sarasota/Bradenton (SRQ)	DJB DJB200 APE021 APE J186 J91 VXV J43 SZW CLAMP-STAR	
Seattle/Tacoma (SEA)	(RNAV only) ALPHE-DP ALPHE J70 PMM	
	or	
	(RNAV only) ALPHE-DP ALPHE J34 BAE	
South Bend (SBN)	AMRST-DP VWV GSH	
Tampa (TPA)	DJB DJB173 HERAK APE035 APE J186 J91 VXV J43 SZW DARBS-STAR	
	or	
	(GPS or DME/DME-IRU equipped) DJB DJB173 HERAK APE035 APE J186 J91 VXV J43 SZW FOXXX (RNAV)-STAR	
Toledo (TOL)	AMRST-DP VWV	
Toronto (CYYZ)	FAILS V443 DOGGS YXU V098 YWT YWT-STAR	
West Chicago/Dupage (DPA)	AMRST-DP VWV EON JOT	
West Palm Beach (PBI)	(GPS or DME/DME-IRU equipped) DJB DJB173 HERAK APE035 APE J83 SPA J85 TAY WLACE	
	or	
	(all others) DJB DJB173 HERAK APE035 APE J83 SPA TAY WLACE (RNAV)-STAR	
Wilmington (ILN)	DJB DJB173 HERAK APE035 APE	
COLUMBUS (CMH)		
Dallas/Fort Worth (DFW)	DQN CVG PXV J131 LIT BYP	

Terminals	Route	Effective Times (UTC)
Detroit/Wayne (DTW).....	DJB DJB314 GEMNI GEMNI-STAR	
Houston (HOU)	(GPS or DME/DME-IRU equipped) LIT J180 SWB ROKIT (RNAV)-STAR	
	or (Non-advanced NAV only) LIT J180 SWB DAS-STAR.....	
Houston (IAH)	(Turbojets-GPS or DME/DME-IRU equipped) LIT J180 SWB TXMEX (RNAV)-STAR	
	or (Non-advanced NAV only) LIT J180 SWB DAS-STAR.....	
La Guardia (LGA)	HLG ETG MIP-STAR	
Miami (MIA)	J83 SPA J85 TAY J75 HITTR PIE CYY-STAR.....	
	or (Turbojets-GPS or DME/DME-IRU equipped) J83 SPA J85 TAY SSCOT (RNAV)-STAR.....	
Newark (EWR)	DJB J29 J584 SLT FQM-STAR.....	
Washington (IAD)	APE APE100 AIR280 AIR J34 SHAAR ROYIL-STAR or (GPS or DME/DME-IRU equipped) APE APE100 AIR280 AIR MGW VERNI ESL SHNON (RNAV)-STAR	
Washington (DCA)	APE APE100 AIR280 AIR J34 SHAAR WZRRD-STAR	
	or APE APE100 AIR280 AIR J34 SHAAR ELDEE (RNAV)-STAR	
DAYTON (DAY)		
Atlanta (ATL)	(RNAV only) IIU BWG ERLIN (RNAV)-STAR	
	or IIU BWG ROME-STAR.....	
Boca Raton (BCT).....	(GPS or DME/DME-IRU equipped) V47 CVG HYK VXV J99 IRQ J85 TAY PRRIE (RNAV)-STAR	1100-0300
Charlotte (CLT)	CVG FLM JOHNS (RNAV)-STAR.....	0700-2300
Dallas/Fort Worth (DFW)	J29 PXV J131 LIT BYP.....	
Fort Lauderdale (FLL)	V47 CVG HYK VXV J43 ATL J89 HITTR PIE FORTL-STAR.....	
	or (GPS or DME/DME-IRU equipped) V47 CVG HYK VXV J43 ATL J89 OTK JINGL (RNAV)-STAR	
Fort Myers (FMY).....	V47 CVG HYK VXV J43 SZW TYNEE (RNAV)-STAR ..	
Fort Myers (RSW)	(GPS or DME/DME-IRU equipped) V47 CVG HYK VXV J43 SZW TYNEE (RNAV)-STAR	1100-0300
Houston (HOU)	GPS or DME/DME-IRU equipped) LIT J180 SWB ROKIT (RNAV)-STAR	
	or (Non-advanced NAV only) LIT J180 SWB DAS-STAR.....	
Houston (IAH)	(Turbojets-GPS or DME/DME-IRU equipped) LIT J180 SWB TXMEX (RNAV)-STAR	
	or (Non-advanced NAV only) LIT J180 SWB DAS-STAR.....	
La Guardia (LGA)	J29 J146 ETG MIP-STAR	
Marco Island (MKY)	V47 CVG HYK VXV J43 SZW PIKKR (RNAV)-STAR..	
Miami (MIA)	V47 CVG HYK VXV J43 ATL SZW J43 PIE CYY-STAR	
	or (Turbojets-GPS or DME/DME-IUR equipped) V47 CVG HYK VXV J43 ATL SZW SSCOT (RNAV)-STAR.....	
Naples (APF).....	V47 CVG HYK VXV J43 SZW PIKKR (RNAV)-STAR..	
Orlando Executive (ORL)	V47 CVG HYK VXV J99 IRQ J85 AMG LEESE-STAR	1100-0300
	or	

Terminals	Route	Effective Times (UTC)
	(GPS or DME/DME-IRU equipped) V47 CVG HYK VXV J99 IRQ J85 AMG SHEMP MTATA PIGLT (RNAV)-STAR	1100-0400
Orlando Intl (MCO)	V47 CVG HYK VXV J99 IRQ J85 AMG LEESE-STAR	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) V47 CVG HYK VXV J99 IRQ J85 AMG BUGGZ (RNAV)-STAR	1100-0400
Sarasota/Bradenton (SRQ)	V47 CVG HYK VXV J43 SZW CLAMP-STAR	
Tampa (TPA)	V47 CVG HYK VXV J43 SZW DARBS-STAR	
	or	
	(GPS or DME/DME-IRU equipped) V47 CVG HYK VXV J43 SZW FOXXX (RNAV)-STAR	
West Palm Beach (PBI)	(GPS or DME/DME-IRU equipped) V47 CVG HYK VXV J99 IRQ J85 TAY WLACE	1100-0300
	or	
	V47 CVG HYK VXV J99 IRQ TAY WLACE (RNAV)-STAR	1100-0300
DETROIT METRO AREA (DTW, DET, YQG, PTK, YIP, ARB)		
Albany (ALB)	MOONN-DP JHW	
Allentown (ABE)	ERRTH-DP ETG	
Atlanta (ATL)	RICHMOND-DP RID IIU BWG ROME-STAR	
	or	
	(RNAV only) RICHMOND-DP RID IIU BWG ERLIN (RNAV)-STAR	
Atlantic City (ACY)	ERRTH-DP CXR EWC JST J152 HAR SIE	
Baltimore (BWI)	ACO AIR AIR111 KEMAN WESTMINSTER-STAR	
Bedford (BED)	MOONN-DP JHW J82 ALB	
Binghamton (BGM)	MOONN-DP JHW	
Birmingham (BHM)	RICHMOND-DP RID IIU	
Boston (BOS)	MOONN-DP JHW J82 ALB GARDNER-STAR	
Buffalo (BUF)	(60-170 incl) MOONN-DP BROKK DKK	
Burlington (BTV)	MOONN-DP J29 JHW LAGGS	
Cancun (MMUN)	RICHMOND-DP RID IIU	
Charleston (CHS)	ROSEWOOD-DP ROD FLM HMV	
Charleston (CRW)	ACO AIR HVQ	
	or	
	(Turboprops/Props-at or below FL210) SCORR CHOOT APE HVQ	
Charlotte (CLT)	ROSEWOOD-DP ROD FLM HMV JOHNS (RNAV)-STAR	
Chicago Midway (MDW)	JXN V116 LEROY GSH GSH-STAR	
Cincinnati (CVG)	FDY DEBAR-STAR	
Cleveland Metro Area (CLE) (CGF) (BKL) (LNN) (LPR)	MAARS HIMEZ HIMEZ-STAR	
Columbus (CMH)	SCORR CHOOT YOGGI GUNNE-STAR	
Dallas/Fort Worth (DFW)	FORT WAYNE-DP FWA RBS STL RZC FSM BONHAM-STAR	
Denver (DEN)	DUNKS J70 PMM J94 ONL J114 SNY LANDR-STAR	1100-0359
Elmira (ELM)	MOONN-DP JHW	
Ft. Lauderdale (FLL)	ROSEWOOD-DP ROD FLM VXV CRG OMN GISSH-STAR	
	or	
	ROSEWOOD-DP ROD FLM VXV CRG OMN FISEL (RNAV)-STAR	
Fort Myers (FMY & RSW)	(Turbojets-GPS or DME/DME-IRU equipped) ROSEWOOD-DP ROD FLM VXV AMG SHFTY (RNAV)-STAR	
Greensboro (GSO)	AIR EKN ROA HENBY	
Greer (GSP)	ROSEWOOD-DP ROD FLM SOT V185 UNMAN	
Houston (HOU)	(GPS or DME/DME-IRU equipped) RID-DP RID PXV J131 LIT J180 SWB ROKIT (RNAV)-STAR.... or	

Terminals	Route	Effective Times (UTC)
	(Non-advanced NAV only) RID-DP RID PXV J131 LIT J180 SWB DAS-STAR	
Houston (IAH)	CAVVS VVW ROD J29 PXV J131 LIT J180 CLUBS DAS-STAR	
	or (Turbojets-GPS or DME/DME-IRU equipped) RID-DP RID PXV J131 LIT J180 SWB TXMEX (RNAV)-STAR	
	or (Non-advanced NAV only) RID-DP RID PXV J131 LIT J180 SWB DAS-STAR	
Huntsville (HSV)	RICHMOND-DP RID IIU J39 BNA	
Indianapolis (IND)	ANNTS DX0217 FWA071 FWA MIE V14 CLANG-STAR	
Jacksonville (JAX)	ROSEWOOD-DP ROD FLM VVX AMG ALMA-STAR ..	
Kennedy (JFK)	MOONN-DP JHW J70 LVZ LENDY-STAR	
La Guardia (LGA)	ERRTH-DP ETG ETG MILTON-STAR	
Lexington (LEX)	ROSEWOOD-DP ROD CVG CLEGG-STAR	
Los Angeles (LAX)	DUNKS J70 PMM OBK IOW J60 HEC J64	1100-0300
Louisville (SDF)	ROSEWOOD-DP ROD CVG REDSTONE-STAR	
Manchester (MHT)	MOONN-DP JHW J82 ALB EEN	
Memphis (MEM)	RICHMOND-DP CAVVS VVW ROD PXV WLDER-STAR	
Miami (MIA)	(RNAV only) ROSEWOOD-DP ROD FLM VVX CRG OMN HILEY (RNAV)-STAR	
	or ROSEWOOD-DP ROD FLM VVX CRG OMN ANNEY-STAR	
Minneapolis (MSP)	LAYNE DX0006 YQG341 J38 GRB EAU-STAR	
Montreal (CYUL)	TYCOB YQG098 J554 JHW J29 SYR ART ART040 J594 MSS FRANX FRANX-STAR	1100-0300
Myrtle Beach (MYR)	ACO AIR EKN RDU	
Nashville (BNA)	RICHMOND-DP RID IIU GUITR-STAR	
Newark (EWR)	ERRTH SLT FQM-STAR	
New Orleans (MSY)	RICHMOND-DP RID IIU J39 BNA MEI RYTHM-STAR	
Niagara Falls (IAG)	MOONN-DP BROKK DKK	
Norfolk (ORF)	ACO AIR MOL TERKS-STAR	
Norwood (OWD)	MOONN-DP JHW J82 ALB GDM	
Orlando Exec (ORL)	CAVVS VVW ROD J43 VVX J99 IRQ J85 AMG LEESE-STAR	
	or (GPS or DME/DME-IRU equipped) ROSEWOOD-DP ROD J43 VVX J99 IRQ J85 AMG SHEMP MTATA PIGLT (RNAV)-STAR	1100-0400
Orlando Intl (MCO)	ROSEWOOD-DP ROD FLM VVX AMG LEESE-STAR ..	
	or (GPS or DME/DME-IRU equipped) ROSEWOOD-DP ROD FLM VVX AMG BUGGZ (RNAV)-STAR	1100-0400
Philadelphia (PHL)	ERRTH-DP CXR EWC JST BUNTS-STAR	
Pittsburgh (PIT)	ACO CUTTA-STAR	
Portland (PWM)	MOONN-DP JHW J82 ALB CAM CON CON061 NEETS	
Pottstown (PTW)	ERRTH-SID CXR EWC JST	
Providence (PVD)	MOONN-DP JHW J82 MEMMS J522 HNK TEDDY-STAR	
Raleigh/Durham (RDU)	ACO AIR EKN ROA SOUTH BOSTON-STAR	
Reading (RDG)	ERRTH-DP ETG	
Richmond (RIC)	ACO AIR MOL FAK	
Roanoke (ROA)	ACO AIR EKN ROA	
	or (Turboprops/Props/at or below 230) SCORR CHOOT APE ROA	
Rochester (ROC)	MOONN-DP BROKK DKK	

Terminals	Route	Effective Times (UTC)
San Antonio (SAT)	FORT WAYNE-DP FWA RBS STL RZC MLC ACT MARCS-STAR	
	or	
	RICHMOND-DP RID RID234/40 PXV J131 TXK FZT TNV IDU MARCS-STAR	
San Francisco (SFO)	DUNKS J70 PMM J94 FMG ILA PYE	
Sarasota/Bradenton (SRQ)	ROSEWOOD-DP ROD FLM VXV AMG TAY LAL	
Shreveport (SHV)	RICHMOND-DP RID RID234/40 PXV	
St. Louis (STL)	ANNTS DX0217 FWA071 FWA RBS VLA-STAR	
Syracuse (SYR)	MOONN-DP JHW	
Tampa (TPA)	ROSEWOOD-DP ROD FLM VXV AMG TAY LZARD-STAR	
	or	
	(GPS or DME/DME-IRU equipped) ROD-DP ROD FLM VXV AMG TAY DADES (RNAV)-STAR	
Teterboro (TEB)	MOONN-DP JHW J70 LVZ WILKES BARRE-STAR ...	
Toronto (CYYZ)	PISTN DX0020 V450 YWT V216	
Trenton (TTN)	ERRTH-DP CXR EWC JST BUNTS-STAR	
Washington Dulles (IAD)	J42 BKW ROYIL-STAR	
	or	
	J42 BKW SHNON (RNAV)-STAR	
	or	
	PXV IIU J8 HVQ ROYIL-STAR	
	or	
	PXV IIU J8 HVQ SHNON (RNAV)-STAR	
Washington Natl (DCA)	(all others) ACO AIR J34 BUCKO BUCKO-STAR	
	or	
	(GPS or DME/DME-IRU equipped) ACO AIR J34 BUCKO ELDEE (RNAV)-STAR	
Westhampton Beach (FOK)	MOONN-DP JHW J70 STW LENDY	
West Palm Beach (PBI)	(GPS or DME/DME-IRU equipped) ROSEWOOD-DP ROD FLM VXV CRG OMN TUXXI-STAR	
	or	
	ROSEWOOD-DP ROD FLM VXV CRG OMN FRWAY (RNAV)-STAR	
White Plains (HPN)	MOONN-DP JHW ITH DNY VALRE-STAR	
Wilkes-Barre (AVP)	MOONN-DP JHW	
Wilmington (ILG)	ERRTH-DP CXR EWC JST BUNTS-STAR	
Windsor Locks (BDL)	MOONN-DP JHW J82 WILET SWEDE-STAR	
Winston Salem (INT)	AIR EKN ROA HENBY	
ELKHART (EKM)		
Cleveland Metro Area (CLE) (CGF) (BKL) (LNN) (LPR)	LFD CRL HIMEZ-STAR	
EVANSVILLE (EVV)		
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) HEVAN MZZ ROYKO (RNAV)-STAR	0000-2359
	or	
	(non-advanced RNAV only) HEVAN MZZ MZZ344/33 OXI KNOX-STAR	0000-2359
FLINT (FNT)		
Atlanta (ATL)	(RNAV-only) VWV RID IIU BWG ERLIN (RNAV)-STAR	
	or	
	VWV RID IIU BWG ROME-STAR	
Cincinnati (CVG)	FWA DEBAR-STAR	
FORT WAYNE (FWA)		
Cincinnati (CVG)	FWA DEBAR-STAR	
GRAND RAPIDS (GRR)		
Atlanta (ATL)	IIU BWG ROME-STAR	
	or	
	(RNAV only) IIU BWG ERLIN (RNAV)-STAR	
Cincinnati (CVG)	FWA DEBAR-STAR	
Cleveland Metro (CLE) (CGF) (BKL) (LNN) (LPR)	GRR HIMEZ-STAR	

Effective
Times
(UTC)

Terminals	Route	
HAMILTON (CYHM)		
Detroit/Wayne Area (DET, YIP, PTK, CYQG)	YXU PICES-STAR.....	
INDIANAPOLIS (IND)		
Dallas/Fort Worth (DFW)	J24 STL RZC FSM BYP	
Houston (HOU)	(GPS or DME/DME-IRU equipped) LIT J180 SWB ROKIT (RNAV)-STAR	
	or	
	(Non-advanced NAV only) LIT J180 SWB DAS-STAR.....	
Houston (IAH)	(Turbojets-GPS or DME/DME-IRU equipped) LIT J180 SWB TXMEX (RNAV)-STAR	
	or	
	(Non-advanced NAV only) LIT J180 SWB DAS-STAR.....	
KALAMAZOO/BATTLE CREEK (AZO)		
Cincinnati (CVG).....	FWA DEBAR-STAR	
Cleveland Metro Area (CLE, CGF, BKL, LNN, LPR)	LFD CRL HIMEZ-STAR.....	
LANSING (LAN)		
Atlanta (ATL)	(RNAV only) VWV RID IIU BWG ERLIN (RNAV)-STAR	
	or	
	VWV RID IIU BWG ROME-STAR.....	
Cincinnati (CVG).....	FWA DEBAR-STAR	
Cleveland Metro Area (CLE, CGF, BKL, LNN, LPR)	SVM HIMEZ-STAR	
LONDON (CYXU)		
Detroit Metro Area (YIP, PTK, DET, CYQG)	YXU PICES-STAR.....	
MADISON (MSN)		
Cleveland Metro Area (CLE, CGF, BKL, LNN, LPR)	SQUIB GRR HIMEZ-STAR.....	
MILWAUKEE (MKE)		
Akron (CAK).....	OBK SAMPL ADIME OTENS VWV MFD V8 DALTS ...	
Albany (ALB)	SQUIB MKG ECK YXU BUF	
Andrews AFB (ADW)	OBK SAMPL ADIME OTENS ANEWA RIEKE DJB J34 SHAAR WZRRD-STAR.....	
Baltimore (BWI)	OBK SAMPL ADIME OTENS ANEWA RIEKE DJB J34 AIR KEMAN WESTMINSTER-STAR	
Boca Raton	(GPS or DME/DME-IRU equipped) OBK J73 SZW PRRIE (RNAV)-STAR	
Bedford (BED).....	SQUIB MKG ECK YXU BUF ALB GDM V431 LOBBY	
Boston (BOS)	SQUIB MKG ECK YXU BUF ALB GARDNER-STAR ...	
Buffalo (BUF)	SQUIB MKG ECK YXU	
Burlington (BTV).....	SQUIB MKG ECK YXU BUF SYR J29 LAGGS	
Cleveland Metro Area (CLE)	SQUIB LAN SVM HIMEZ-STAR	
Detroit/Wayne (DTW).....	BAE POLAR-STAR	
Detroit Metro Area (YIP)	SQUIB LAN SPRTN-STAR.....	
Flint (FNT)	SQUIB.....	
Fort Lauderdale (FLL)	OBK J73 SZW JINGL (RNAV)-STAR.....	1100-0300
	or	
	(GPS or DME/DME-IRU equipped) OBK J73 SZW JINGL (RNAV)-STAR	
Fort Myers (FMY)	OBK J73 SZW TYNEE (RNAV)-STAR.....	1100-0300
Harrisburg (MDT).....	OBK SAMPL ADIME GERBS J146 CXR EWC HAR ...	1100-0300
Houston (HOU)	(GPS or DME/DME-IRU equipped) LIT J180 SWB ROKIT (RNAV)-STAR	
	or	
	(Non-advanced NAV only) LIT J180 SWB DAS-STAR.....	
Houston (IAH)	(Turbojets-GPS or DME/DME-IRU equipped) LIT J180 SWB TXMEX (RNAV)-STAR	
	or	
	(Non-advanced NAV only) LIT J180 SWB DAS-STAR.....	

Terminals	Route	Effective Times (UTC)
Hyannis (HYA).....	SQUIB MKG ECK YXU BUF ENE LFA.....	
Jackson (JXN).....	SQUIB.....	
Kansas City (MCI).....	DBQ BRAYMER-STAR.....	
Kansas City (MKC).....	DBQ IRK BRAYMER-STAR.....	
Kennedy (JFK).....	SQUIB MKG ECK J16 HANKK J522 HNK IGN KINGSTON-STAR.....	
La Guardia (LGA).....	SQUIB MKG ECK YXU BUF GEE ROCKDALE-STAR ..	
Lansing (LAN).....	SQUIB.....	
Mansfield (MFD).....	OBK SAMPL ADIME OTENS VVW	
Miami (MIA).....	OBK J73 SZW J43 PIE CYY-STAR	1100-0300
	or (Turbojets-GPS or DME/DME-IRU equipped) OBK J73 SZW SSCOT (RNAV)-STAR	1100-0300
Montreal (CYUL).....	SQUIB MKG ECK YYZ J594 MSS.....	
Morristown (MMU).....	SQUIB MKG ECK J16 HANKK IGN WEARD V489 COATE	
Nashville (BNA).....	OBK J73 PXV CCT HEHAW-STAR	
Newark (EWR).....	SQUIB MKG ECK J16 HANKK J522 HNK SHAFF-STAR	
Niagara Falls (IAG).....	SQUIB MKG ECK YXU	
Orlando Executive (ORL).....	OBK J84 DNV TTH BWG GQO ATL J89 OTK LEESE-STAR	
	or (GPS or DME/DME-IRU equipped) OBK J84 DNV TTH BWG GQO ATL J89 OTK PIGLT (RNAV)-STAR	1100-0400
Orlando Intl (MCO).....	OBK J84 DNV TTH BWG GQO ATL J89 OTK LEESE-STAR	1100-0300
	or (GPS or DME/DME-IRU equipped) OBK J84 DNV TTH BWG GQO ATL J89 OTK PIGLT (RNAV)-STAR	1100-0400
Philadelphia (PHL).....	OBK SAMPL ADIME GERBS J146 CXR EWC JST BUNTS-STAR	
Pittsburgh (PIT).....	OBK SAMPL ADIME OTENS ANEWA RIEKE DJB ACO CUTTA-STAR.....	
Portland (PWM).....	SQUIB MKG ECK YXU BUF ALB CON PARSO	
Pottstown (PTW).....	SQUIB ADALE J34 CRL CXR EWC JST	
Providence (PVD).....	SQUIB MKG ECK J16 HANKK J522 HNK TEDDY-STAR	
Sarasota/Bradenton (SRQ).....	OBK J73 SZW CLAMP-STAR	1100-0300
Syracuse (SYR).....	SQUIB MKG ECK YXU BUF	
Tampa (TPA).....	OBK J73 SZW DARBS-STAR	1100-0300
	or (GPS or DME/DME-IRU equipped) OBK J73 SZW FOXXX (RNAV)-STAR	1100-0300
Teterboro (TEB).....	SQUIB MKG ECK J16 HANKK IGN WEARD V489 COATE	
Toledo (TOL).....	SQUIB PMM LFD	
Toronto (CYYZ).....	SQUIB MKG ECK V216.....	
Washington Dulles (IAD).....	OBK GIJ J146 J34 DJB J34 AIR MGW MGW121 VERNI ESL SHAAR ROYIL-STAR.....	
	or OBK SAMPL ADIME OTENS ANEWA RIEKE DJB J34 AIR MGW VERNI ESL SHNON (RNAV)-STAR.....	
Washington Natl (DCA).....	OBK GIJ J146 J34 DJB J34 SHAAR WZRRD-STAR ..	
	or OBK SAMPL ADIME OTENS ANEWA RIEKE DJB J34 SHAAR ELDEE (RNAV)-STAR	
West Palm Beach (PBI).....	(GPS or DME/DME-IRU equipped) OBK J73 SZW WLACE.....	
White Plains (HPN).....	SQUIB MKG ECK J16 BUF ITH DNY VALRE-STAR ..	
Windsor Locks (BDL).....	SQUIB MKG ECK J16 AUDIL SWEDE-STAR.....	
Youngstown (YNG).....	OBK SAMPL ADIME GERBS CXR	

Effective
Times
(UTC)

Terminals	Route
MOLINE (MLI)	
Cleveland Metro Area (CLE) (CGF) (BKL)	
(LNN) (LPR)	ELX CRL HIMEZ-STAR
Detroit/Wayne (DTW)	MKG POLAR-STAR
MONTREAL (CYUL)	
Cincinnati (CVG)	(RNAV only) YOW J546 YSO MAULL KODIE CTW
	TIGRR (RNAV)-STAR
	or
	(all others) YOW J546 YSO YYZ JHW JHW194
	MAULL SLT249 KODIE CTW081 CTW
	CINCE-STAR
Detroit/Wayne (DET)	YOW J546
Kennedy (JFK)	V282 J524 BUGSY J570 ALB IGN IGN-STAR
La Guardia (LGA)	V282 J542 BUGSY J570 ALB PWL IGN V157
OSHAWA (CYOO)	
Detroit Metro Area (DTW, DET, YQG, PTK, YIP, ARB)	YSN YHM YXU PICES-STAR
OTTAWA (CYOW)	
Detroit Metro Area (DTW, DET, YQG, PTK, YIP ARB)	YOW J546 YSO YXU PICES-STAR
PEORIA (PIA)	
Detroit/Wayne (DTW)	MKG POLAR-STAR
ROCKFORD (RFD)	
Cleveland Metro Area (CLE) (CGF) (BKL)	
(LNN) (LPR)	ELX CRL HIMEZ-STAR
SAGINAW (MBS)	
Cleveland Metro Area (CLE) (CGF) (BKL)	
(LNN) (LPR)	MBS V133 SVM HIMEZ-STAR
SAINT THOMAS (CYQS)	
Detroit Metro Area (DTW, DET, YQG, PTK, YIP, ARB)	AXXIS PICES-STAR
SOUTH BEND (SBN)	
Atlanta (ATL)	(RNAV only) IIU BWG ERLIN (RNAV)-STAR
	or
	IIU BWG ROME-STAR
Cincinnati (CVG)	FWA DEBAR-STAR
Cleveland Metro Area (CLE) (CGF) (BKL)	
(LNN) (LPR)	LFD CRL HIMEZ-STAR
TOLEDO (TOL)	
Atlanta (ATL)	VWV RID IIU BWG ROME-STAR
TORONTO (CYYZ)	
Cincinnati (CVG)	(RNAV only) THORL JHW MAULL KODIE CTW
	TIGRR (RNAV)-STAR
	or
	(all others) THORL JHW JHW194 MAULL SLT249
	KODIE CTW081 CTW CINCE-STAR
Detroit Metro Area (DTW, DET, YQG, PTK, YIP, ARB)	ANCOL V104 YXU PICES-STAR
La Guardia (LGA)	(above 250 kts) V252 GEE RKA-STAR
	or
	(250 kts or less) V252 GEE V14 BEEPS J522
	EXTOL RKA292 RKA NOBB-STAR
San Francisco (SFO)	GRB J106 GEP J70 ABR J32 FMG ILA PYE
WATERLOO (CYKF)	
Detroit Metro Area (DTW, DET, YQG, PTK, YIP, ARB)	YXU PICES-STAR

1100-0300

PREFERRED IFR ROUTES

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

Terminals	Route	Effective Times (UTC)
Traffic originating east of Chicago Terminating Denver:		
DJB	J60 IOW DSM J144 OBH J10 LBF SAYGE-STAR	1300-0100
BAE	J16 MCW ONL J114 SNY LANDR-STAR	1300-0100
STL	STL J110 GCK J154 RYLIE DANDD-STAR	
Traffic overflying Cleveland Center and south of SLT:		
HPN	(above 250 kts) SLT J190 CFB DNY280 DNY VALRE-STAR	
	or	
	PSB J49 CFB220 CFB DNY280 DNY VALRE-STAR	
	or	
	(250 kts or less) SLT J190 CFB DNY280 DNY NOBBI-STAR	
	or	
	PSB J49 CFB220 CFB DNY280 DNY NOBBI-STAR	
EWR	ROD J29 J584 FQM-STAR	1100-0300
ROD J29 J70 LVZ LENDY-STAR	1100-0300 or	
BKW J42 GVE KORRY-STAR	1100-0300	
PHL	ROD J152 HAR V210 BUNTS	1100-0300
	or	
	BKW J42 GVE DPNT-STAR	1100-0300
PIT	APE CTW V443 WISKE	
	or	
	HNN JPU V117 WISKE	
TEB/MMU/CDW/Satellites	(Non-Advanced Nav Aircraft only) ROD J29 JHW J70 LVZ LVZ-STAR	
Traffic overflying Badger VORTAC, BAE to Washington Dulles IAD:		
BAE	J34 AIR MGW MGW121 VERNI ESL ROYIL-STAR	
	or	
	(GPS or DME/DME-IRU equipped) J34 AIR MGW VERNI ESL SHNON (RNAV)-STAR	
Traffic overflying Gipper VORTAC, GIJ to Washington Dulles IAD:		
GIJ	J146 WOOST J34 AIR MGW MGW121 VERNI ESL ROYIL-STAR	
	or	
	(GPS or DME/DME-IRU equipped) J146 WOOST J34 AIR MGW VERNI ESL SHNON (RNAV)-STAR	
Traffic overflying Indianapolis Center area eastbound originating north and west of a line from DFW to JFK:		
ABE	ROD CXR J146	
BDL	ROD J29 JHW J82 WILET RKA SWEDE-STAR	
BWI	ROD J152 J162 MGW EMI-STAR	
CEF	ROD J29 JHW J82 ALB	
FRG	ROD J29 JHW J82 J522 HNK IGN V58 V91 CCC	
HPN	(above 250 kts) ROD J29 JHW J82 WILET DNY VALRE-STAR)	
	or	
	(250 kts or less) ROD J29 JHW J82 WILET DNY NOBBI-STAR	
ISP	(above 250 kts) ROD J152 J78 PSB J49 HNK J68 V130 TOMES MAD V34 CREAM V16 CCC	
	or	
	(250 kts or less) ROD J152 J78 PSB J49 HNK DNY LOVES-STAR	
TEB/MMU/CDW/LDJ	ROD J29 JHW J70 LVZ-STAR	

Terminals	Route	Effective Times (UTC)
Traffic overflying Indianapolis Center area eastbound originating south and east of a line from DFW to JFK:		
ABE	BKW LDN LDN031 V377 HAR V162 DUMMR.	
ACY	BKW J42 OTT SIE	
BWI	BKW J147 CSN OTT-STAR	
DAA	BKW J213 V143 V4 AML	
DCA/ADW	BKW WZRRD-STAR	
	or	
DOV	BKW ELDEE (RNAV)-STAR	
HPN	BKW J42 GVE ENO-STAR	
IAD	BKW J42 OOD J150 CYN BOUNO-STAR	1100-1830 and 2230-0300
	BKW ROYIL-STAR	
	or	
	BKW SHNON (RNAV)-STAR	1100-1830 and 2230-0300
	or	
	GSO J14 CREWE J51 FAK COATT-STAR	1830-2230
	or	
	GSO J14 CREWE J51 FAK BARIN (RNAV)-STAR	1830-2230
LFI	BKW J42 MOL J24 HCM	
NSF	BKW J213 FINKS AML259 AML	
PHL	BKW J42 GVE DPNT-STAR	
TEB/MMU/CDW/LDJ	(Advanced Nav Aircraft only) BKW J42 GVE JAIKE-STAR	
WRI	BKW J42 OTT SIE-STAR	
Traffic overflying Indianapolis Center from Kansas City Center landing at Cleveland Metro:		
CLE	(GPS or DME/DME-IRU equipped) STL J134 JUDDI CVG ABERZ-STAR	
Traffic overflying Indianapolis Center from Kansas City Center landing at Detroit/Wayne:		
DTW	(GPS or DME/DME-IRU equipped) PXV VHP FWA MIZAR-STAR	
Traffic overflying Indianapolis (ZID) or Cleveland (ZOB) Centers landing in the Washington Metropolitan Area:		
BWI	MGW EMI-STAR	1100-0300
	or	
	BKW J147 CSN OTT-STAR	1100-0300
DCA	APE J30 BUCKO BUCKO-STAR	1100-0300
	or	
	BKW FINKS-STAR	1100-0300
	or	1100-0300
	(GPS or DME/DME-IRU equipped) BKW ELDEE (RNAV)-STAR	1100-0300
	or	
	APE J30 SHAAR WZRRD-STAR	
	or	
	BKW WZRRD-STAR	
	or	
	APE J30 SHAAR ELDEE	
	or	
	BKW ELDEE (RNAV)-STAR	
	or	
IAD	APE AIR MGW MGW121 VERNI ESL ROYIL-STAR	
	or	
	BKW ROYIL-STAR	
	or	
	HVQ ROYIL-STAR	
	or	
	(GPS or DME/DME-IRU equipped) APE AIR MGW VERNI ESL SHNON (RNAV)-STAR	
	or	
	BKW SHNON (RNAV)-STAR	
	or	
	HVQ SHNON (RNAV)-STAR	

Terminals	Route	Effective Times (UTC)
Traffic overflying Indianapolis Center (ZID) to Chicago O'Hare (ORD)		
ORD	(Non-Advanced Nav Aircraft only) ATL J89 IIU MZZ OXI KNOX-STAR	
	or	
	(Non-Advanced Nav Aircraft only) BNA IIU MZZ OXI KNOX-STAR	
	or	
	(Non-Advanced Nav Aircraft only) FLM J24 BIGXX MZZ OXI KNOX-STAR	
	or	
	(Non-Advanced Nav Aircraft only) IRQ J99 IIU MZZ OXI KNOX-STAR	
	or	
	(Non-Advanced Nav Aircraft only, Washington/Baltimore Metro Area Only: BWI, DCA, IAD) ROD J149 FWA KNOX-STAR	

HIGH ALTITUDE—SINGLE DIRECTION ROUTES

Airway	Segment Fixes	Direction Effective	Effective Times (UTC)
J24/110	Indianapolis, IN to St. Louis, MO	West	1100-0300
J30	Joliet, IL to TRIXY Intn, VA	East	1100-0300
J34	Bellaire, OH to TRIXY Intn, VA	East	1100-0300
J149	Armel, VA to Rosewood, OH	West	1100-0300
J162	Bellaire, OH to Martinsburg, WV	East	1100-0300

Q-ROUTES REGULATORY

Q1, Q3, Q5, Q7, Q9 and Q11 are preferred single direction (Southbound) Q routes; flight planning Northbound not authorized.

Q routes are RNAV routes that require the use of GNSS or DME/DME/IRU RNAV, unless otherwise indicated. Please note that this section does not apply to Q routes in the Gulf of Mexico. Gulf of Mexico Q routes are explained in the Southeast and South Central A/FD volumes. Q routes listed in this A/FD volume have at least part of one of their leg segments within this volume's area of coverage.

GNSS and DME/DME/IRU RNAV operations are authorized along Q routes at FL 180 and above. GNSS and DME/DME/IRU RNAV MEAs will only be published if above FL 180.

DME facilities that have been assessed for RNAV operations are listed below. Q routes with no DME facilities listed are limited to GNSS RNAV operations only. Those routes will have an enroute chart note "GNSS REQUIRED".

Route	Segment	DME
Q1	ELMAA-ERAVE	BTG, OLM, HQM, HUH, UBG
	ERAVE-EASON	BTG, OLM, HQM, HUH, LTJ, CVO, DSD, OED, UBG, ONP, EUG
	EASON-EBINY	CVO, DSD, OED, BTG, UBG, ONP, EUG, LMT
	EBINY-ENVIE	CVO, OED, EUG, LMT, RBL, ENI, ONP, FJS
	ENVIE-ETCHY	OED, PYE, OAK, LIN, ECA, LMT, RBL, ENI, SAC, FJS
	ETCHY-POINT REYES	LIN, ECA, RBL, ENI, SAC, OAK
Q2	BOILE-HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI-HOBOL	BZA, GBN, BLH, EED, PXR, IPL, TFD, DRK, TUS
	HOBOL-ITUCO	TFD, GBN, BLH, PXR, TUS, CIE, SSO
	ITUCO-NEWMAN	EWM, TFD, PXR, CIE, SSO, TUS, TCS
Q3	FEPOT-FAMUK	OLM, TOU, HQM, CVO, BTG, DSD, LTJ, UBG, ONP, EUG
	FAMUK-FRFLY	BTG, DSD, OED, CVO, EUG, ONP, UBG, RBL, LMT
	FRFLY-FINER	OED, EUG, RBL, LMT, ENI, CVO, FJS
	FINER-FOWND	OED, PYE, ECA, LIN, OAK, ENI, RBL, LMT, SAC, FJS
	FOWND-POINT REYES	LIN, ECA, PYE, RBL, SAC, ENI
Q4	BOILE-HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI-SCOLE	EED, BLH, BZA, GBN, TRM, IPL, TFD
	SCOLE-SPTFR	EED, BLH, BZA, GBN, TRM, IPL, TFD
	SPTFR-ZEBOL	EED, IPL, BZA, GBN, TFD, PXR, BLH
	ZEBOL-SKTR	PXR, BLH, BZA, GBN, TFD, TUS, SSO, CIE, SVC, TCS
	SKTR-EL PASO	EWM, CUS, SVC, TCS, SSO, CIE, ELP, DMN, CME
Q5	HAROB-HISKU	OLM, ONP, CVO, EUG, HQM, UBG, BTG, LTJ, DSD, HUH
	HISKU-HARPR	ONP, CVO, EUG, LTJ, DSD, UBG, BTG, RBL, OED, LMT, FJS, LKV
	HARPR-HOMEG	CVO, EUG, OED, RBL, LMT, ENI, FJS, LKV
	HOMEG-HUPTU	SAC, PYE, LIN, OAK, ECA, LMT, RBL, ENI, OED, FJS
	HUPTU-STIKM	OAK, ECA, PYE, LIN, SAC, ENI, RBL
Q7	JINMO-JOGEN	CVO, HQM, LTJ, UBG, BTG, ONP, IMB, EUG, OLM, DSD, YKM, PDT, SEA
	JOGEN-JUNEJ	LTJ, IMB, UBG, EUG, CVO, RBL, LMT, FMG, DSD, LKV, OED, BTG
	JUNEJ-JAGWA	RBL, LMT, FMG, LIN, SAC, ECA, ENI, MOD, SWR, OAK, LKV, CZQ, AVE, SNS
	JAGWA-AVENAL	OAK, MOD, ECA, EHF, PRB, AVE, SNS, CZQ
Q9	SUMMA-SMIGE	OLM, UBG, SEA, YKM, BTG, ONP, IMB, HQM, PDT, EUG, LTJ, CVO, DSD, OED, EPH, MWH
	SMIGE-SUNBE	IMB, UBG, EUG, IMB, RBL, LMT, FMG, SAC, OED, CVO, LKV, DSD, BTG
	SUNBE-REBRG	RBL, LMT, FMG, SAC, ECA, MVA, CZQ, OAK, EHF, PMD, LKV, LIN, MOD, AVE, OED, SWR
	REBRG-DERBB	CZQ, PMD, EHF, LAX, RZS, AVE, MOD, ECA
	PAAGE-PAWLI	EPH, UBG, CVO, EUG, HQM, YKM, OLM, PDT, BTG, ONP, IMB, LTJ, DSD, LKV, OED, SEA
	PAWLI-PITVE	EUG, FMG, SAC, IMB, LKV, OED, DSD, RBL, LMT, CVO, REO
Q13	PITVE-PUSHH	FMG, SAC, LIN, SWR, MOD, OAL, RBL, LKV, LMT, MVA, CZQ
	PUSHH-LOS ANGELES	SAC, ECA, FMG, LIN, OAL, MOD, EHF, LAX, PMD, PDZ, HEC, OCN, CZQ, AVE, RZS
	All segments	None; GNSS required
Q15	All segments	None; GNSS required
Q19	PLESS-NASHVILLE	ENL, GQO, PXV, BNA, IUI, FAM, BWG, CSX
Q20	CORONA-HONDS	CNX, ABQ, ACH, ONM, TXO, LVS, TCC, CME
	HONDS-UNNOS	CNX, INK, CME, TXO, TCC
	UNNOS-FUSCO	FST, ACH, INK, CME, SJT, TXO, TCC
Q21	FUSCO-JUNCTION	ABI, CWK, CSI, INK, LZZ, JCT, SJT, STV, FST
	JONEZ-RAZORBACK	BYP, EOS, TUL, TXK, ADM, RZC, OKM
Q22	GUSTI-OYSTY	AEX, DAS, MCB, LLA, BTR, LCH, HRV, LFT, LEV
	OYSTY-ACMES	RQR, GCV, MCB, BTR, PCU, GPT, HRV, LEV, SJJ
Q23	ACMES-CATLN	SJJ, MGM, MCB, BFM, GPT, GCV, HRV, CEW, MVC, PCU, MEI
	FORT SMITH-RAZORBACK	OKM, RZC, EOS, TUL

Route	Segment	DME
Q24	LAKE CHARLES-BATON ROUGE BATON ROUGE-IRUBE IRUBE-PAYTN	AEX, DAS, LCH, MCB, LFT, BTR AEX, LEV, MCB, LCH, RQR, HRV, BTR, GCV, MCB, PCU, SJI, LBY GCV, MCB, JYU, PCU, MEI, HRV, CEW, SJI
Q25	MEEOW-WALNUT RIDGE WALNUT RIDGE-WLSUN WLSUN-POCKET CITY	ELD, MEM, LIT, FAM, RZC MEM, STL, BWG, PXV, ENL, FAM, ARG, BNA, CSX, TTH BWG, PXV, ENL, BNA, TTH
Q26	WALNUT RIDGE-DEVAC	LIT, JKS, GQO, MEM, BNA, FAM, ARG, DYR, VUZ, RMG
Q27	FORT SMITH-ZALDA	OKM, SGF, RZC, EOS, TUL
Q28	GRAZN-PYRMD PYRMD-HAKAT HAKAT-ESTEE	EIC, LIT, ELD, OKM, TXK ARG, LIT, FAM, ELD, SGF, RZC, MEM, TXK ARG, LIT, FAM, SGF, MEM
Q29	ESTEE-POCKET CITY HARES-MEMPHIS MEMPHIS-SIDAE SIDAE-POCKET CITY	ARG, CSX, FAM, PXV, ENL, MEM, STL, BWG, TTH, BNA MEM, ARG, LIT, JAN, ELD, SQS MEM, PXV, BNA, BWG, ARG, ENL PXV, TTH, BWG, ENL
Q30	SIDON-VULCAN	GLH, MEM, VUZ, JAN, JYU, MEI, MGM, SQS, RMG
Q31	DHART-JODOX JODOX-MARVELL MARVELL-TIIDE TIIDE-POCKET CITY	SQS, LIT, TXK SQS, LIT, ELD, MEM, ARG ARG, BWG, PXV, FAM, LIT, MEM, ENL, TTH BWG, PXV, ENL, TTH
Q32	EL DORADO-GAGLE GAGLE-CRAMM CRAMM-NASHVILLE NASHVILLE-SWAPP	AEX, JAN, MEM, SQS, SWB, ELD, LIT, TXK JAN, SQS, MEM, ARG, VUZ, BNA, LIT BWG, MEM, VUZ, BNA, GQO BWG, IIU, PXV, VXV, BNA, GQO
Q33	DHART-LITTLE ROCK	AEX, ELD, LIT, TXK, SWB, ARG, MEM, SQS
Q34	LITTLE ROCK-PROWL TEXARKANA-MATIE MATIE-MEMPHIS MEMPHIS-SWAPP	ELD, SGF, FAM, LIT, ARG, MEM, RZC, CSX, STL LIT, SWB, TXK, BYP, EIC, ELD, SQS LIT, ARG, MEM, ELD, SQS BWG, ARG, MEM, MKL, SQS, PXV, BNA, GQO, IIU, VXV
Q35	KIMBERLY-NEERO NEERO-WINEN WINEN-CORKR CORKR-DRAKE	LTJ, PDT, DSD, IMB, LKV, BOI, REO, BAM, SDO BQU, SDO, BAM, REO, BVL, ILC, DTA, ELY, CDC, MLF, BCE CDC, BCE, BLD, ILC, MLF, TBC, PGS, INW, DRK TBC, BCE, BLD, DRK, PGS, FLG, GCN, INW, TFD
Q36	RAZORBACK-TWITS TWITS-DEPEC DEPEC-NASHVILLE NASHVILLE-SWAPP	RZC, MEM, SGF, BUM, TUL, EOS, FAM, ARG, LIT MEM, GQO, BNA, BWG, FAM, ARG, PXV, IIU GQO, BWG, BNA, PXV, IIU VXV, BWG, BNA, GQO, PXV, IIU
Q38	ROKIT-INCIN INCIN-LAREY LAREY-BESOM	DAS, LCH, SWB, IAH, LFK, HUB, AEX JAN, MCB, SWB, AEX JAN, JYU, MEI, SQS, VUZ
Q40	ALEXANDRIA-DOOMS DOOMS-WINAP WINAP-MISLE	AEX, SWB, LCH, JAN, HEZ, MCB JAN, SQS, MEI, MCB MEI, VUZ, JYU
Q42	KIRKSVILLE-STRUK STRUK-DANVILLE DANVILLE-MUNCIE MUNCIE-HIDON	CID, IOW, UIN, LMN, IRK, BDF, STL, DEC, ENL, CSX ENL, IOW, UIN, BDF, DEC, STL, CSX, SPI, TTH, BVT, JOT, VHP, OXI, ENL, OKK, OBK, GIJ, FWA, GSH, IRK GIJ, SPI, BDF, OBK, OKK, VHP, BVT, DEC, GSH, FWA, JOT, TTH, OXI, ROD, FLM FLM, VHP, GSH, TTH, GIJ, OKK, FWA, ROD, OXI, CRL, GSH, APE, DJB, DXO, HNN, AIR, HVQ, CXR, EWC AIR, APE, HNN, CXR, HVQ, EWC, DJB AIR, APE, DJB, CXR, HNN, EWC, SLT, CSN, JHW, ETG, PSB PSB, JHW, EWC, AIR, ETG, CSN, EMI, SLT EMI, SLT, CSN, EWC, PSB, ETG, SAX, RBV, HNK, HUO, SIE ETG, EMI, CSN, HUO, SIE, JFK, PSB, SLT, HNK JFK, EMI, PSB, SLT, HNK, SIE, RBV, SAX, HUO, CYN HUO, RBV, EMI, CYN, SAX, JFK, PSB, HNK PIE, PZD, CRG, SZW, TAY, JYU, CEW, MGM, OTK, CRG PIE, ORL, OMN, SRQ, TAY, LAL, CRG, SZW, PZD PIE, ORL, OMN, SRQ, TAY LAL, ORL, OMN, SRQ, PHK, PIE PHK, PBI, SRQ, PIE, VRB, ORL, FLL, LAL, OMN
Q104	HIDON-BUBAA BUBAA-PSYKO PSYKO-BRNAN BRNAN-MAALS MAALS-SUZIE SUZIE-EAST TEXAS EAST TEXAS-ELIOT DEFUN-HEVVN HEVVN-PLYER PLYER-SWABE SWABE-ST PETERSBURG ST PETERSBURG- CYPRESS	

Route	Segment	DME
Q106	SMELZ-BULZI	LAL, ORL, OMN, PHK, PIE, CRG, VRB, TAY, OTK, PZD, AMG, SZW
	BULZI-DRABK	AMG, PZD, TAY, CRG, SZW, MGM, OTK, JYU, CEW, SJI
	DRABK-GADAY	MGM, PZD, OTK, JYU, SZW, CEW, SJI
Q108	GADAY-CLAWZ	MGM, SJI, CEW, JYU, PZD, OTK, MCN, SZW, LGC, TAY, AMG
Q110	THNDR-JAYMC	SRQ, VRB, PHK, PIE, LAL, VKZ, ORL, PBI
	JAYMC-RVERO	VKZ, VRB, PHK, PIE, LAL, SRQ, ORL, OMN, PBI, DHP
	RVERO-KPASA	OMN, PIE, PBI, SRQ, ORL, LAL
	KPASA-BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS-GULFR	OMN, AMG, CRG, SZW, PIE, TAY, PZD, OTK
Q112	GULFR-FEONA	TAY, MCN, PZD, CRG, OTK, SZW, AMG, MCN, ATL, MGM
	DEFUN-HEVVN	PIE, OTK, CRG, OMN, LAL, SZW, SRQ, ORL, VRB
	HEVVN-INPIN	JYU, PZD, CEW, SZW, MGM, OTK, TAY, AMG, PIE, CRG
Q116	KPASA-BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS-GULFR	OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK
	GULFR-CEEYA	MCN, AMG, PZD, OTK, SZW, TAY
Q118	KPASA-BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS-LENIE	OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK, MCN
Q501	VIXIS-GOPHER	ECK, FNT, APN, SSM, GRR, MBL, SAW, BAE, MNM, DLL, AUW, ODI, STE, FGT, EAU,
		DLH, GEP, BRD, MCW, MSP, ASP, TVC, GRB, RWF
Q502	GOPHER-SOBME	FGT, BRD, MCW, GEP, ABR, FAR, DLH, ODI, RWF, FSD
	KENPA-GOPHER	SSM, FNT, ECK, APN, SAW, GRB, BAE, DLL, AUW, ODI, FGT, DLH, EAU, MCW,
Q504		MSP, MNM, ASP, TVC, GEP, RWF, BRD
	GOPHER-SOBME	FGT, DLH, ODI, MCW, ABR, FAR, MSP, GEP, RWF, FSD, BRD
	NOTAP-CESNA	SSM, ECK, APN, GLR, PLN, ISQ, MNM, DLL, RHI, DLH, GEP, FGT, ODI, ASP, TVC,
Q505		SAW, GRB, BRD
	CESNA-HEMDI	ODI, GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, DLL, BRD
	OMAGA-RIMBE	SSM, TVC, ASP, SAW, GRB
	RIMBE-CESNA	SSM, RHI, DLL, DLH, GEP, FGT, TVC, SAW, GRB, BRD, ODI
	CESNA-HEMDI	GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, BRD, ODI, GRB

*Denotes Critical DME Facility

RNAV Routing Pitch and Catch Points

The purpose of this section of the Special High Altitude Routes is to present user routing options for flight within the initial HAR Phase I expansion airspace. Users are able to fly user-preferred routes, referred to as non-restrictive routing (NRR), between specific fixes described by **pitch** (entry into) and **catch** (exit out of) fixes in the HAR airspace. Pitch points indicate an end of departure procedures, preferred IFR routings, or other established routing programs where a flight can begin a segment of NRR. The catch point indicates where a flight ends a segment of NRR and joins published arrival procedures, preferred IFR routing, or other established routing programs.

The HAR Phase I expansion airspace is defined as that airspace at and above FL 350 in fourteen of the western and southern Air Route Traffic Control Centers (ARTCCs). The airspace includes Minneapolis (ZMP), Chicago (ZAU), Kansas City (ZKC), Denver (ZDV), Salt Lake City (ZLC), Oakland (ZOA), Seattle Centers (ZSE), Los Angeles (ZLA), Albuquerque (ZAB), Fort Worth (ZFW), Memphis (ZME), and Houston (ZHU). Jacksonville (ZJX) and Miami (ZMA) are included for east-west routes only.

To develop a flight plan, select pitch and catch points based upon your desired route across the Phase I airspace. Filing requirements to pitch points, and from catch points, remain unchanged from current procedures. For the portion of the route between the pitch and catch points, non-restrictive routing is permitted.

Where pitch points for a specific airport are not identified, aircraft should file an appropriate departure procedure (DP), or any other user preferred routing prior to the NRR portion of their routing. Where catch points for a specific airport are not identified aircraft should file, after the NRR portion of their routing, an appropriate arrival procedure or other user preferred routing to their destination.

Additionally, information concerning the location and schedule of Special Use Airspace (SUA) and Air Traffic Control Assigned Airspace (ATCAA) can be found on the Web Site: <http://sua.faa.gov/sua/Welcome.do>. ATCAA refers to airspace in the high altitude structure supporting military and other special operations. Users are encouraged to file around these areas when they are scheduled to be active, thereby avoiding unplanned reroutes around them.

In conjunction with the HAR program RNAV routes have been established to provide for a systematic flow of air traffic in specific portions of the enroute flight environment. The designator for these RNAV routes begin with the letter Q, for example, Q-501. Where those routes aid in the efficient orderly management of air traffic they will be published as preferred IFR routes.

HAR Special High Altitude Pitch (entry) Points for Nonrestrictive Routing for Airports Located Outside HAR Phase I Expansion Airspace

Westbound traffic originating outside of HAR airspace entering ZMP, ZAU, ZKC and ZME can begin non-restrictive routing over any of the following pitch points (listed from north to south):

DLH, CESNA, GEP, BAE, MKG, GRR, PMM, GSH, CADIZ, FWA, VHP, FLM, IIU, PXV, SGF, RZC, BNA, SALMS, VUZ, BOYDD, MIE.

Traffic originating outside of HAR airspace may also begin Nonrestrictive Routing upon crossing the pitch line depicted on the associated graphic.

HAR Special High Altitude Pitch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists pitch points for airports within the HAR Phase I expansion airspace.

Albuquerque	ABQ, GUP, HANOS or ZUN
Austin	ABI, FUZ, JCT, MQP, NAVYS, SJT or TNV
Boca Raton, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Burbank includes Santa Monica and Van Nuys	GMN, MARKS or DAG LAS or HEC EED or PMD BLH
Chicago Terminal Area	IOW, PLL275065, MVZ or BAE
Dallas/Fort Worth Terminal Area	ABI, LBB, GTH, CDS, MRMAC, IRW, TUL, MLC, TXK ELD, SWB or Aircraft destined the Chicago terminal area Except MDW EAKER MIDEE BDF BRADFORD-STAR or MLC J105 SGF BDF BRADFORD-STAR
Denver Terminal Area	PUB, DVC, DBL, RLG, EKR, LAR, MBW, CYS, BFF, HANKI, NATTI, ASHBY, BELKE, CABET, WEEDS, OR BINKE
Fort Lauderdale (or) Fort Lauderdale Executive	THNDR KPASA Q118 LENIE or THNDR KPASA Q116 CEEYA or THNDR KPASA Q110 FEONA or THNDR SMELZ Q106 GADAY or THNDR SMELZ Q106 BULZI
Houston Bush	LIT, EMG, MLC, JCT or Aircraft destined Atlanta Terminal Area LCH Q24 PAYTN HONIE-RNAV STAR or Aircraft joining J37 to the northeast, BPT GUSTI Q22 CATLN or Aircraft joining J42 to the northeast, ELD Q32 J42

Houston Hobby	LIT, EMG, MLC, JCT, or Aircraft joining J42 to the northeast, ELD Q32 J42
Jacksonville, FL	TAY
Kansas City Terminal Area	TIFTO, CATTs or KENTN
Los Angeles, includes Ontario	GMN, RZS or DAG LAS or TRM EED or TRM PKE
Las Vegas	DOBNE, MOSBI, NICLE, TRALR or ZELOT
Long Beach includes Orange County	GMN SNS, EHF, LANDO or TRM PKE or TRM EED
Memphis	BNA, HAAWK, SALMS or SQS
Miami Terminal Area	WINCO KPASA Q118 LENIE or WINCO KPASA Q116 CEEYA or WINCO KPASA Q110 FEONA or WINCO SMELZ Q106 GADAY or WINCO SMELZ Q106 BULZI
Milwaukee	GREAS
Minneapolis Terminal Area*	ONL, ABR, FAR, OBH, OVR, FOD
New Orleans Terminal Area	AEX, MEI, SQS, KAPLN
Orlando Terminal Area	WEBBS BRUTS Q118 LENIE or WEBBS GULFR Q116 CEEYA or WEBBS BULZI Q106 GADAY or WEBBS FEONA or WEBBS BULZI
Palm Beach, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Palm Springs	TRM JOTNU BLD or TRM EED or TRM PKE
Phoenix	CHILY, CIE, CULTS, RSK, DOVEE, GCN, MESSI, SJN, DRYHT or MOHAK
Portland, OR	PDT, TIMEE

Salt Lake City	HVE, DTA, MLF, BCE, OAL, MTU, BVL, OCS, TWF, DBS, BPI or TCH J56 CHE or TCH J173 EKR
Saint Louis	VIH, MAP, MYERZ, MCM or HLV MCI
San Antonio Terminal Area	FUZ, SJT, MQP, ABI or Aircraft North of LFK, LFK or Aircraft South of HUB, ELA or Aircraft South of LFK and North of HUB LCH
San Diego	TRM EED or TRM PKE or TRM JOTNU BLD
San Francisco Bay Area	GALLI, INSLO, HAROL JSICA
Oakland	GALLI, INSLO, HAROL JSICA
San Jose	GALLI or INSLO
Seattle	BLUIT
Southwest Florida Airports (RSW/FMY)	JOCKS KPASA Q118 LENIE or JOCKS KPASA Q116 CEEYA or JOCKS KPASA Q110 FEONA or JOCKS SMELZ Q106 GADAY or JOCKS SMELZ Q106 BULZI
Tampa Terminal Area	FEONA, BULZI or BRUTS Q118 LENIE or GULFR Q116 CEEYA or BULZI Q106 GADAY

*MSP area departures with destinations east of 93 degrees west longitude via preferred IFR routing.

Catch Points for Airports Located Outside HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to specific destinations which are outside the HAR Phase I airspace.

Atlanta Terminal Area	Aircraft through ZME airspace from ZKC airspace east of FAM, Pless Q19 BNA or Aircraft through ZME airspace from ZKC airspace west of FAM, ARG Q26 DEVA or MEM or Aircraft through ZME airspace from ZID airspace west of a line from VHP to BWG, BNA or Aircraft through ZME airspace from ZID airspace east of a line from VHP to BWG, BWG or Aircraft through ZME airspace from ZFW airspace, MEM or MEI HONIE (RNAV)–STAR or PATYN HONIE (RNAV)–STAR
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Baltimore–Washington*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA or VUZ
Boston*	GEP, CRL, ECK, IIU, BNA or VUZ
Buffalo*	GEP, CRL
Hartford Bradley*	GEP, CRL
Canton–Akron*	GIJ, VHP, GEP
Charlotte	BNA, VUZ
Cincinnati Terminal Area	BNA, PXV or Aircraft north of SLC, JOT or Aircraft over or south of SLC, ENL or SLC or SFO departures, ENL, JOT
Cleveland Terminal Area*	OBK
Detroit Terminal Area	BAE MKG POLAR–STAR or VHP FWA MIZAR–STAR
Detroit Young	VHP FWA or LAN SPRTN–STAR
Indianapolis Terminal Area	BIB, SPI, JOT
Louisville	ENL, MEM
Newark*	GEP, VHP, FLM, IIU, BNA, VUZ or IOW GIJ J554 CRL J584 SLT FQM
New York Kennedy*	GEP, VHP, FLM, IIU, BNA, VUZ or DBQ J94 PMM J70 LVZ LENDY–STAR
New York LaGuardia*	GIJ, GEP, VHP, BAE, FLM, IIU, BNA, VUZ
Philadelphia Terminal Area*	GIJ, GEP, VHP, BAE, WHETT, BNA, VUZ
Pittsburgh Terminal Area*	VHP, GIJ, BAE, GEP
Pontiac	LFD, LAN, VHP, FWA, GEP
Providence	JHW, HEMDI, CESNA, GEP, GRB, TVC, ASP, VHP, IIU, BNA, VUZ
Raleigh–Durham	FLM, IIU, BNA, VUZ
Toronto Terminal Area	ECK, SVM, SSM, GEP
Teterboro*	GEP, VHP, CRL, BNA, VUZ
Washington Dulles/National*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA, VUZ
White Plains*	GEP, VHP, CRL, FLM, IIU, BNA, VUZ
Willow Run*	LAN, LFD, VHP, FWA, GEP

*Eastbound aircraft over flying ZMP center airspace entering Toronto center airspace, file direct SSM or via J63, J522, Q505, Q504, Q502, Q501

or

Entering ZAU or ZOB airspace from north of DPR J16 MCW, GEP

or

Entering ZAU or ZOB airspace from or south of DPR J16 MCW, CRL.

Catch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to airports which are below HAR Phase I airspace.

Albuquerque Terminal Area	CURLY CURLY-STAR or ESPAN FRIHO-STAR or LAVAN LAVAN-STAR or FTI FRIHO-STAR or MIERA MIERA-STAR
Austin Terminal Area	Aircraft west of a north-south line at LFK, BLEWE or Aircraft east of a north-south line at LFK, IDU or LLO
Boca Raton, FL	CEW DEFUN Q112 INPIN SHDAY (RNAV)-STAR Aircraft through ZHU remain south of ZME and ZTL airspace or DEFUN Q112 INPIN SHDAY (RNAV)-STAR Aircraft through ZHU remain south of ZME and ZTL airspace or SZW INPIN SHDAY (RNAV)-STAR
Chicago Midway	CVA MOTIF-STAR or PIA MOTIF-STAR or DBQ CVA MOTIF-STAR or LMN MOTIF-STAR
Chicago O'Hare Terminal Area	GEP DLL MSN JVL JANESVILLE-STAR or TVC PULLMAN-STAR or FOD DBQ JVL JANESVILLE-STAR or MCW JANESVILLE-STAR or GCK IRK BRADFORD-STAR
Dallas/Fort Worth Terminal Area	IRW, LOSZY, FSM, LIT, SQS, MLU, AEX, JUMBO, TQA, TURKI, HEATR Aircraft through ZME airspace from north and west of PXV, RZC, Q23 FSM or Aircraft through ZME airspace from east of PXV, PXV Q25 MEEOW or Aircraft through ZME airspace from J6 down to, but not including J52, LIT, SQS or Aircraft through ZME airspace from J52 and south of J52, SQS

Denver Terminal Area	OATHE DANDD-STAR
	or
	HGO QUAIL-STAR
	or
	LOPEC-STAR
	or
	ALS LARKS-STAR
	or
	HBU POWDR-STAR
	or
	EKR TOMSN-STAR
	or
	CHE TOMSN-STAR
	or
	BFF LANDR-STAR
	or
	LBF SAYGE-STAR
	or
	HCT SAYGE-STAR
	or
	RSK LARKS-STAR
	or
	LAA QUAIL-STAR
	or
	GCK J154 RYLIE DANDD-STAR
	or
	OCS J154 ALPOE RAMMS-STAR
	or
	YANKI J114 SNY LANDR-STAR
	or
	Aircraft filed BIL or east, MBW RAMMS-STAR
Ft Lauderdale or Ft Lauderdale Executive	CEW DEFUN Q104 PIE SWAGS (RNAV)-STAR
	Aircraft through ZHU airspace remain south ZME and ZTL airspace
	or
Houston Bush	SZW HEVVN Q104 PIE SWAGS (RNAV)-STAR
	CRP, CVE, LLO, LUKIY, SAT
	or
	Aircraft south and east of LLA, LLA
	or
	MISLE Q40 AEX
	or
	Aircraft north and east of SJI, SJI
	or
	Aircraft east of PXV, PXV Q31 DHART SWB
	or
	Aircraft north and west of PXV, PROWL Q33 DHART SWB
Houston Hobby	CRP, ELLVR, SAT, SWB
	or
	Aircraft south and east of GIRLY, GIRLY
	or
	Aircraft north and east of SJI, SJI
	or
	BESOM Q38 ROKIT ROKIT-STAR
	or
	Aircraft east of PXV, PXV Q29 HARES SWB
	or
	Aircraft north and west of PXV, PROWL Q33 DHART SWB
Jacksonville	GADAY ZOOSS TAY
	Aircraft through ZHU airspace remain south of ZME and ZTL airspace
	or
	ZOOSS TAY

John Wayne–Orange County	HEC, PGS, BLD or Aircraft south of TBC from ZAB airspace, HIPPI
Kansas City Terminal Area	LMN BRAYMER–STAR or PWE ROBINSON–STAR or EMP JHAWK–STAR
Las Vegas	DILCO, LIDAT, IGM or Aircraft over PGA or north of PGA KSINO or Aircraft south of PGA PGS LYNSY
Los Angeles Terminal Area	Aircraft North of TBC, HEC, PGS or Aircraft South of TBC from ZAB airspace, HIPPI, MESSI
Miami Terminal Area	CEW DEFUN Q104 CYY DEEDS (RNAV)–STAR Aircraft through ZHU airspace remain south ZME and ZTL airspace or SZW HEVNV Q104 CYY DEEDS (RNAV)–STAR
Minneapolis Terminal Area	Aircraft from north, west, south, FAR GOPHER–STAR or RWF SKETR–STAR or ALO KASPR–STAR or BRD GOPHER–STAR or BAE EAU CLAIRE–STAR or FOD TWOLF–STAR
Memphis Terminal Area	ARG, BWG, FSM, PXV, LIT, RZC, SQS, VUZ, BNA, GQO, ELD
Naples, FL	CEW DEFUN Q104 PLYER PIKKR (RNAV)–STAR Aircraft through ZHU AIRSPACE remain south of ZME and ZTL airspace or SZW HEVNV Q104 PLYER PIKKR (RNAV)–STAR
Nashville	CCT, GHM, GUITR, TINGS, VOLLS
New Orleans Terminal Area	BLUEZ, GPT, LCH, MCB, TBD, FATSO
Oakland	ILA or KATTS PAMMY or Aircraft over or south of a line ILC J16 DVC REANA KATTS PAMMY or Aircraft from north of ILC, JOPER PAMMY or KATTS PAMMY or Aircraft over or south of ILC, REANA KATTS PAMMY
Orlando Terminal Area	GADAY Q108 CLAWZ LEESE–STAR Aircraft through ZHU airspace remain south of ZME/ZTL airspace or OTK LEESE–STAR

Palm Beach, FL	CEW DEFUN Q112 INPIN GULLO (RNAV)–STAR Aircraft through ZHU airspace remain south of ZME and ZTL airspace or SZW INPIN GULLO (RNAV)–STAR
Phoenix	CORKR DRK or Aircraft from ZDV airspace, GUP or Aircraft from ZAB airspace, ZUN, MOHAK, SSO or VYLLA TUS
Phoenix Satellites	FLG, SSO, MOHAK or VYLLA, TUS
Portland, OR Terminal Area	ARNIT BONVL–STAR or LARNO BONVL–STAR or MOXEE MOXEE–STAR
St. Louis Terminal Area	SGF TRAKE–STAR or BUM TRAKE–STAR or ANX TRAKE–STAR or LMN IRK RIVRS–STAR or RBS VANDALIA–STAR
Salt Lake City Terminal Area	JNC J12 HELPR SPANE–STAR or EKR MTU SPANE–STAR or BCE DTA–TCH or MLF DTA–TCH or BVL BONNEVILLE–STAR or BYI BEARR–STAR or PIH BEARR–STAR or DBS BRIGHAM CITY–STAR or JAC BRIGHAM CITY–STAR or BPI BRIGHAM CITY–STAR or OCS BRIGHAM CITY–STAR
San Diego Terminal Area	EED, LAX, GBN
Santa Ana	HEC, PGS, BLD, HIPPI
San Antonio Terminal Area	IDU, CSI, JCT, LLO, CRP, LRD or West of a north–south line at LFK, BLEWE or East of a north–south line at LFK, IDU

San Francisco	FMG GOLDEN GATE–STAR
	or
	MVA MODESTO–STAR
	or
	ENI GOLDEN GATE–STAR
	or
	OAL MODESTO–STAR
San Jose	or
	South of a line ILC to DVC, REANA KATTS OAL MODESTO–STAR
	FMG HYP EL NIDO–STAR
	or
	OAL HYP EL NIDO–STAR
	or
	ENI GOLDEN GATE–STAR
Seattle Terminal Area	or
	South of a line ILC to DVC, REANA KATTS KICHI CANDA EL NIDO–STAR
	Aircraft from northeast, southeast, south, TEMPL GLASR–STAR
	or
	SUNED CHINS–STAR
	or
	BTG OLMYPIA–STAR
Southwest Florida Airports RSW and FMY	CEW DEFUN Q104 SWABE JOSFF–STAR
	Aircraft through ZHU airspace remain south of ZME and ZTL airspace
	or
	SZW HEVVN Q104 SWABE JOSFF–STAR
Tampa Terminal Area	CEW DEFUN Q104 HEVVN DARBS–STAR
	Aircraft through ZHU airspace remain south of ZME and ZTL airspace
	or
	SZW DARBS–STAR
Tucson	DRK PXR
	or
	MOHAK GBN

VISUAL FLIGHT RULES (VFR) WAYPOINTS

VFR Waypoint names consist of five letters beginning with "VP". Stand-alone VFR Waypoints are portrayed on VFR Charts using the same four-point star symbol currently used for Instrument Flight Rules (IFR) Waypoints.

VFR Waypoints collocated with Visual Checkpoints (Visual Reporting Points) are portrayed with a Visual Check Point flag. The VFR Waypoint name is shown in parentheses adjacent to the Visual Check Point name.

VFR Waypoint names are not intended to be pronounceable and shall not be used in ATC communications.

CAUTION: GPS accuracy necessitates extra vigilance for other aircraft when navigating near any fix retrieved from a GPS database.

BALTIMORE–WASHINGTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPAXI	_____	N38°34.57' /W076°20.38'
VPONX	_____	N39°06.65' /W076°55.92'
VPOOP	_____	N38°56.32' /W076°36.90'

BOSTON HELICOPTER CHART

VPBAY	_____	N42°16.17' /W070°49.48'
VPBLT	_____	N42°19.67' /W070°53.40'
VPCGS	_____	N42°22.08' /W071°03.13'
VPEVS	_____	N42°23.52' /W071°04.10'
VPFEN	_____	N42°12.58' /W071°08.88'
VPFRE	_____	N42°25.03' /W071°12.32'
VPGLV	_____	N42°21.88' /W070°52.18'
VPHAM	_____	N42°30.13' /W071°07.15'
VPPIK	_____	N42°20.37' /W071°15.93'
VPQUA	_____	N42°12.10' /W071°04.78'
VPQUB	_____	N42°12.60' /W070°59.83'
VPSPF	_____	N42°24.20' /W071°09.47'
VPTOB	_____	N42°31.42' /W070°59.82'
VPWAN	_____	N42°36.88' /W071°19.45'

BOSTON TERMINAL AREA CHART

VPCOH	Cohasset	N42°13.58' /W070°48.94'
VPCUT	Cuttyhunk Harbor	N41°25.50' /W070°55.03'
VPFRA	Framingham Shopping Center	N42°18.16' /W071°23.65'
VPHOL	Woods Hole	N41°31.06' /W070°40.60'
VPHUL	Hull	N42°18.20' /W070°55.30'
VPLPT	Nantucket Great Point	N41°23.41' /W070°02.78'
VPNED	Needham Towers	N42°18.51' /W071°14.64'
VPPEA	Peabody Shopping Center	N42°32.52' /W070°56.69'
VPROC	Rockingham Race Track	N42°46.29' /W071°13.57'
VPSCI	Scituate	N42°11.89' /W070°43.69'
VPTPT	Nantucket Third Point	N41°18.51' /W070°03.37'
VPTUC	Tuckernuck	N41°18.31' /W070°15.43'
VPWAK	Wakefield	N42°30.72' /W071°05.24'
VPWAN	Wang Towers	N42°36.88' /W071°19.45'

CHARLOTTE SECTIONAL CHART

VPATO	_____	N34°37.37' /W076°31.47'
VPAVA	_____	N34°57.00' /W077°16.50'
VPBFE	_____	N32°16.38' /W080°47.50'
VPBRA	_____	N36°13.75' /W076°08.08'
VPGCE	_____	N36°03.90' /W076°36.42'
VPGHI	_____	N35°15.30' /W075°31.25'
VPGIO	_____	N35°32.50' /W076°37.33'
VPKJU	_____	N35°26.58' /W076°10.22'
VPLMN	_____	N34°55.43' /W077°46.42'
VPMAB	_____	N34°42.20' /W077°03.50'
VPNPO	ISLE OF PALMS	N32°47.78' /W079°46.45'
VPOKY	_____	N35°06.53' /W075°59.17'
VPREP	_____	N32°33.98' /W080°21.82'
VPRRS	_____	N33°25.45' /W079°07.60'
VPUMO	_____	N35°35.63' /W075°28.08'
VPWZO	_____	N36°00.87' /W075°40.07'
VPZIE	_____	N32°01.62' /W080°53.42'

CHICAGO SECTIONAL CHART

WAYPOINT IDENT
VPCOH

COLLOCATED VFR CHECKPOINT

LOCATION
N31°49.35' / W081°51.07'

DENVER TERMINAL AREA CHART/FLYWAY CHART

VPBEN
VPFTG
VPNIC

NORTH INTERCHANGE

N39°44.28' / W104°26.00'
N39°44.35' / W104°32.75'
N39°58.90' / W104°59.27'

HOUSTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT
VPBWY
VPDTN
VPGLA
VPGLB
VPKTY
VPPLN
VPRSN
VPSND
VPSNT
VPTNE
VPTNW
VPTRK

COLLOCATED VFR CHECKPOINT

LOCATION
N29°46.25' / W095°09.24'
N29°46.59' / W095°22.01'
N30°08.32' / W095°06.62'
N30°07.80' / W094°55.70'
N29°47.05' / W095°44.92'
N30°08.80' / W095°50.42'
N29°30.00' / W095°41.00'
N29°23.13' / W095°28.86'
N29°49.29' / W094°53.94'
N29°47.48' / W095°03.34'
N29°47.06' / W095°33.81'
N29°24.06' / W095°10.44'

JACKSONVILLE SECTIONAL CHART

VPAFI
VPAFY
VPBEC
VPCJA
VPCKY
VPCNY
VPDAD
VPDAR
VPDFI
VPDUT
VPEAR
VPEGV
VPPFU
VPGPE
VPHAA
VPHUC
VPIWA
VPJMY
VPKER
VPLEV
VPLJA
VPMIA
VPTLH
VPXZY
VPYIW
VPZIE

DADE CITY

CLEARWATER BEACH

ST PETE BEACH

MIDWAY

LAKE PARKER

N31°49.35' / W081°51.07'
N30°07.00' / W081°21.33'
N29°46.25' / W081°15.10'
N29°30.00' / W081°06.00'
N28°46.50' / W082°34.00'
N28°30.00' / W080°45.00'
N28°22.57' / W082°11.25'
N31°22.38' / W081°24.13'
N29°00.17' / W081°20.85'
N27°37.70' / W082°09.10'
N27°58.67' / W082°49.83'
N29°39.97' / W081°24.87'
N28°57.08' / W081°00.33'
N27°43.50' / W082°44.67'
N30°04.02' / W083°40.02'
N28°19.87' / W082°43.77'
N31°48.33' / W081°25.85'
N29°26.92' / W081°18.27'
N28°04.00' / W081°56.00'
N28°48.00' / W080°52.00'
N29°00.00' / W080°51.00'
N30°50.02' / W084°56.63'
N30°32.70' / W083°52.22'
N29°35.00' / W083°10.00'
N30°42.28' / W081°27.25'
N32°01.62' / W080°53.42'

KANSAS CITY SECTIONAL CHART

VPAGO
VPBEK
VPDEN
VPENE
VPESSE
VPFME
VPGXY
VPMBE
VPMKE
VPROV
VPUTT

N37°50.33' / W090°29.03'
N37°15.07' / W092°30.67'
N37°46.75' / W092°19.20'
N37°44.75' / W091°55.78'
N36°59.48' / W091°00.88'
N37°41.00' / W092°38.33'
N37°15.50' / W091°40.17'
N37°11.08' / W090°27.92'
N37°24.47' / W092°40.00'
N38°01.72' / W091°12.81'
N37°52.05' / W092°01.20'

KANSAS CITY TERMINAL AREA CHART

KLAMATH FALLS SECTIONAL CHART

LOS ANGELES HELICOPTER CHART

EC, 22 OCT 2009 to 17 DEC 2009

LOS ANGELES SECTIONAL CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCNG	CONEJO GRADE US HWY 101	N34°12.54'/W118°59.61'
VPCSU	CSU CHANNEL ISLANDS	N34°09.76'/W119°02.53'
VPFPL	OXNARD FINANCIAL PLAZA	N34°13.71'/W119°10.39'
VPSTC	SATICOY BRIDGE	N34°16.62'/W119°08.34'

LOS ANGELES TERMINAL AREA CHART/FLYWAY CHART

VPCNG	CONEJO GRADE US HWY 101	N34°12.54'/W118°59.61'
VPCSU	CSU CHANNEL ISLANDS	N34°09.76'/W119°02.53'
VPGETY	GETTY CENTER	N34°04.84'/W118°28.66'
VPLBP	BANNING PASS	N33°56.05'/W116°59.63'
VPLCC	CHAFFEY COLLEGE	N34°08.87'/W117°34.33'
VPLCP	CAJON PASS	N34°18.07'/W117°27.68'
VPLDL	DISNEYLAND	N33°48.72'/W117°55.13'
VPLDP	DANA POINT	N33°27.62'/W117°42.87'
VPLDS	DODGER STADIUM	N34°04.42'/W118°14.42'
VPLFX	91/605 INTERCHANGE	N33°52.38'/W118°06.08'
VPLGP	GRIFFITH PARK OBSERVATORY	N34°07.10'/W118°18.02'
VPLHF	110/405 FWYS	N33°51.42'/W118°17.10'
VPLHP	HUNTINGTON PIER	N33°39.32'/W118°00.25'
VPLKH	KING HARBOR	N33°50.75'/W118°23.88'
VPLLC	L.A. COLISEUM	N34°00.83'/W118°17.27'
VPLLM	LAKE MATHEWS	N33°50.58'/W117°26.85'
VPLMM	MAGIC MOUNTAIN	N34°26.20'/W118°36.28'
VPLMS	MILE SQUARE PARK	N33°43.40'/W117°56.77'
VPLPD	PRADO DAM	N33°53.40'/W117°38.48'
VPLPP	PACIFIC PALISADES	N34°02.13'/W118°32.15'
VPLQM	QUEEN MARY	N33°45.17'/W118°11.37'
VPLRB	ROSE BOWL	N34°09.67'/W118°10.05'
VPLRT	SANTA ANITA RACE TRACK	N34°08.45'/W118°02.65'
VPLSA	SANTA ANA CANYON	N33°52.03'/W117°42.68'
VPLSB	SANTA FE FLOOD BASIN	N34°07.72'/W117°57.30'
VPLSC	STATE COLLEGE	N33°52.97'/W117°53.13'
VPLSF	SAN FERNANDO RESERVOIR	N34°17.87'/W118°29.00'
VPLSP	SIGNAL PEAK	N33°36.33'/W117°48.63'
VPLSR	HAWTHORNE & 405 FREEWAY	N33°53.07'/W118°21.13'
VPLSS	SANTA SUSANA PASS	N34°16.00'/W118°38.43'
VPLTW	TUJUNGA WASH & FOOTHILL	N34°16.40'/W118°20.30'
VPLVT	VINCENT THOMAS BRIDGE	N33°44.97'/W118°16.32'
VPLWT	WATER TANK	N34°10.82'/W118°46.27'
VPNEW	NEWHALL PASS	N34°20.18'/W118°30.72'
VPSTC	SATICOY BRIDGE	N34°16.62'/W119°08.34'

MIAMI SECTIONAL CHART

VPACH	HOLLYWOOD BEACH	N26°00.92'/W080°06.93'
VPBOV	_____	N27°57.00'/W080°46.75'
VPCLC	_____	N26°27.07'/W082°00.88'
VPCTE	_____	N26°09.28'/W081°20.70'
VPDAD	DADE CITY	N28°22.57'/W082°11.25'
VPDUT	_____	N27°37.70'/W082°09.10'
VPDZE	_____	N27°19.00'/W080°44.17'
VPEAR	CLEARWATER BEACH	N27°58.67'/W082°49.83'
VPEDY	ANDYTOWN TOLLGATE	N26°08.78'/W080°28.00'
VPFAH	_____	N26°25.40'/W081°29.67'
VPGPE	ST PETE BEACH	N27°43.50'/W082°44.67'
VPHRO	_____	N27°05.97'/W082°12.20'
VPHUC	_____	N28°19.87'/W082°43.77'
VPIBR	_____	N27°12.47'/W081°40.22'
VPKER	LAKE PARKER	N28°04.00'/W081°56.00'
VPKOE	_____	N24°40.08'/W081°20.55'
VPLYY	_____	N24°49.07'/W080°49.17'
VPMB0	GULFSTREAM PARK	N25°58.57'/W080°08.17'
VPOBA	PUMPING STATION	N26°28.30'/W080°26.75'
VPRBI	_____	N25°50.67'/W080°55.18'
VPRNL	RANGER STATION	N25°22.92'/W080°36.58'
VPWMO	_____	N27°03.00'/W080°35.00'

MIAMI TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPACH	HOLLYWOOD BEACH	N26°00.92' / W080°06.93'
VPEDY	ANDYTOWN TOLLGATE	N26°08.78' / W080°28.00'
VPMB0	GULFSTREAM PARK	N25°58.57' / W080°08.17'
VPOBA	PUMPING STATION	N26°28.30' / W080°26.75'
VPRBI		N25°50.67' / W080°55.18'
VPRNL	RANGER STATION	N25°22.92' / W080°36.58'

NEW ORLEANS SECTIONAL CHART

VPGPT		N30°25.95' / W089°05.62'
VPLIP	PHILLIPS INLET	N30°16.23' / W085°59.25'
VPMAl		N30°50.02' / W084°56.63'
VPMOB		N30°23.00' / W088°31.72'
VPRAM		N30°18.95' / W089°35.88'
VPRER		N30°13.87' / W085°20.67'
VPRIV		N30°54.85' / W087°57.82'
VPSAW		N30°49.65' / W089°07.42'
VPTHR		N30°19.93' / W087°08.50'

NEW YORK HELICOPTER CHART

VPJAY		N40°59.00' / W073°07.00'
VPLYD		N40°57.37' / W073°29.59'
VPROK		N40°52.70' / W073°44.24'

PHOENIX TERMINAL AREA CHART/FLYWAY CHART

VPALL	ALLENVILLE	N33°20.97' / W112°35.20'
VPAQU	AQUEDUCT PUMPING STATION	N33°40.05' / W112°41.38'
VPARM	ARROWHEAD MALL	N33°38.52' / W112°13.48'
VPAWG	AHWATUKEE GOLF COURSE	N33°19.98' / W111°59.08'
VPAZM	ARIZONA MILLS	N33°23.43' / W111°57.88'
VPBAR	BARTLETT DAM	N33°49.10' / W111°37.92'
VPCCC	COUNTRY CLUB & CANAL	N33°30.73' / W111°50.37'
VPCNL	CANAL	N33°33.23' / W111°46.89°
VPFRB	FIREBIRD LAKE	N33°16.35' / W111°58.10'
VPFTN	FOUNTAIN HILLS	N33°36.12' / W111°42.72'
VPGLX	GILA CROSSING	N33°16.55' / W112°10.08'
VPGPP	GLENDALE POWER PLANT	N33°33.27' / W112°13.00'
VPMAR	MARICOPA	N33°03.42' / W112°02.88'
VPMHS	MESQUITE HIGH SCHOOL	N33°20.53' / W111°49.58'
VPNRV	NEW RIVER	N33°55.08' / W112°08.45'
VPNTT	NORTH TEST TRACK	N33°03.50' / W111°55.83'
VPPIR	PIR	N33°22.52' / W112°18.90'
VPQTR	QUINTERO GOLF COURSE	N33°49.53' / W112°23.58'
VPRVC	RIO VERDE COMMUNITY	N33°44.37' / W111°39.62'
VPSMC	SOUTH MOUNTAIN COLLEGE	N33°23.02' / W112°02.12'
VPSQP	SQUAW PEAK	N33°32.83' / W112°01.27'
VPSSS	SUPERSTITION SPRINGS MALL	N33°23.50' / W111°41.37'
VPSTN	SANTAN MOUNTAINS	N33°09.23' / W111°40.92'
VPSTT	SOUTH TEST TRACK	N32°56.25' / W111°59.67'
VPZZZ		N33°20.18' / W111°26.53'

ST LOUIS TERMINAL AREA CHART/FLYWAY CHART

VPAGN	TV ANTENNA	N38°32.08' / W090°22.42'
VPBPE		N38°23.80' / W090°20.38'
VPCJY	HOLIDAY SHORES	N38°55.00' / W089°56.00'
VPCOJ	WINFIELD DAM	N39°00.28' / W090°41.23'
VPDFA	JEFFERSON BARRACKS BRIDGE	N38°29.18' / W090°16.47'
VPEAZ	BUSCH STADIUM	N38°37.43' / W090°11.55'
VPEDZ	WATER TANKS	N38°45.30' / W090°34.87'
VPEGR	GAS TANKS	N38°35.80' / W090°19.32'
VPEOX	ST PETERS	N38°47.17' / W090°39.25'

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPFAI	HOWELL ISLAND	N38°40.00' / W090°43.00'
VPFFY		N38°55.37' / W090°17.30'
VPGPF		N38°35.60' / W090°26.92'
VPGVI		N38°32.30' / W090°27.80'
VPHRQ	CHAIN OF ROCKS BRIDGE	N38°45.88' / W090°10.42'
VPIBO	WATERLOO	N38°20.00' / W090°09.00'
VPJMU	HORSESHOE LAKE	N38°41.00' / W090°05.00'
VPKNY	PACIFIC	N38°29.00' / W090°44.00'
VPLES	ST CHARLES	N38°47.00' / W090°30.00'
VPLIW	SIX FLAGS	N38°30.67' / W090°40.47'
VPLXU	GATEWAY ARCH	N38°37.50' / W090°11.00'
VPNSY	WOOD RIVER REFINERIES	N38°50.00' / W090°05.00'
VPNZY	WENTZVILLE	N38°48.83' / W090°50.98'
VPRAZ	JERSEYVILLE	N39°07.00' / W090°20.00'
VPRMO	FOREST PARK	N38°38.00' / W090°17.00'
VPWKO	COLUMBIA	N38°27.00' / W090°12.00'
VPXXI	MILLSTADT	N38°27.50' / W090°05.68'
VPYID	MOSENTHEIN ISLAND	N38°43.00' / W090°12.25'

SALT LAKE CITY HELICOPTER CHART

VPAIR	SALTAIR	N40°44.85' / W112°11.22'
VPBEE	SOUTH INTERCHANGE	N40°38.18' / W111°54.23'
VPBRN	BARN	N40°54.28' / W112°10.15'
VPCAP	STATE CAPITOL	N40°46.67' / W111°53.25'
VPCHS		N40°42.28' / W112°05.92'
VPCOP	BINGHAM COPPER MINE	N40°31.38' / W112°09.00'
VPCWY	CAUSEWAY	N41°05.37' / W112°07.17'
VPCYN	PARLEYS CANYON	N40°42.67' / W111°48.10'
VPFPC	FREE PORT CENTER	N41°05.92' / W112°02.27'
VPFPK	FRANCIS PEAK	N41°01.98' / W111°50.30'
VPGFS	GARFIELD STACK	N40°43.28' / W112°11.88'
VPHVE	SPAGHETTI BOWL	N40°43.50' / W111°54.22'
VPJRT	JORDAN RIVER TEMPLE	N40°35.02' / W111°55.58'
VPKSL	KSL ANTENNA	N40°46.80' / W112°05.80'
VPLGN	LAGOON AMUSEMENT PARK	N40°59.08' / W111°53.57'
VPMDH	MCKAY DEE HOSPITAL	N41°11.50' / W111°57.08'
VPMMT	MICROWAVE TOWERS	N40°48.50' / W111°53.37'
VPMSH		N41°01.67' / W112°02.47'
VPNSL		N40°50.15' / W111°54.90'
VPNTP		N41°03.57' / W112°14.23'
VPOGE	GRAIN ELEVATOR	N41°13.13' / W112°00.45'
VPOPS	POWER STATION	N41°20.38' / W112°02.78'
VPPEN	STATE PRISON	N40°29.88' / W111°53.62'
VPPPT	PROMONTORY POINT	N41°12.28' / W112°25.73'
VPPTM	POINT OF THE MOUNTAIN	N40°27.42' / W111°54.83'
VPVPO	PROVO CANYON	N40°18.77' / W111°39.45'
VPRWY		N40°48.48' / W112°00.33'
VPSLC	I-15/I-80 INTERCHANGE	N40°45.83' / W111°54.85'
VPTIP	SOUTH TIP	N40°50.93' / W112°10.92'
VPWBR	WEBER CANYON	N41°08.17' / W111°54.83'
VPWBT		N40°38.00' / W112°03.33'

SALT LAKE CITY TERMINAL AREA CHART/FLYWAY CHART

VPAIR	SALTAIR	N40°44.85' / W112°11.22'
VPBEE	SOUTH INTERCHANGE	N40°38.18' / W111°54.23'
VPBRN	BARN	N40°54.28' / W112°10.15'
VPCAP	STATE CAPITOL	N40°46.67' / W111°53.25'
VPCHS		N40°42.28' / W112°05.92'
VPCOP	BINGHAM COPPER MINE	N40°31.38' / W112°09.00'
VPVCI	CENTERVILLE INTERCHANGE	N40°55.30' / W111°53.43'
VPCWY	CAUSEWAY	N41°05.37' / W112°07.17'
VPCYN	PARLEYS CANYON	N40°42.67' / W111°48.10'
VPFPC	FREE PORT CENTER	N41°05.92' / W112°02.27'
VPFPK	FRANCIS PEAK	N41°01.98' / W111°50.30'
VPGFS	GARFIELD STACK	N40°43.28' / W112°11.88'

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPHVE	SPAGHETTI BOWL	N40°43.50'/W111°54.22'
VPJRT	JORDAN RIVER TEMPLE	N40°35.02'/W111°55.58'
VPKSL	KSL ANTENNA	N40°46.80'/W112°05.80'
VPLGN	LAGOON AMUSEMENT PARK	N40°59.08'/W111°53.57'
VPMDH	MCKAY DEE HOSPITAL	N41°11.50'/W111°57.08'
VPMMT	MICROWAVE TOWERS	N40°48.50'/W111°53.37'
VPMSH	_____	N41°01.67'/W112°02.47'
VPNSL	_____	N40°50.15'/W111°54.90'
VPNTPE	_____	N41°03.57'/W112°14.23'
VPOGE	GRAIN ELEVATOR	N41°13.13'/W112°00.45'
VPOPS	POWER STATION	N41°20.38'/W112°02.78'
VPPEP	STATE PRISON	N40°29.88'/W111°53.62'
VPPTT	PROMONTORY POINT	N41°12.28'/W112°25.73'
VPPTM	POINT OF THE MOUNTAIN	N40°27.42'/W111°54.83'
VPVPO	PROVO CANYON	N40°18.77'/W111°39.45'
VPRWY	_____	N40°48.48'/W112°00.33'
VPSLC	I-15/I-80 INTERCHANGE	N40°45.83'/W111°54.85'
VPITP	SOUTH TIP	N40°50.93'/W112°10.92'
VPUOU	U OF U EVENTS CENTER	N40°45.73'/W111°50.28'
VPWBR	WEBER CANYON	N41°08.17'/W111°54.83'
VPWBT	_____	N40°38.00'/W112°03.33'
VPZOO	HOGLE ZOO	N40°45.00'/W111°48.95'

SAN DIEGO TERMINAL AREA CHART/FLYWAY CHART

VPLDP	DANA POINT	N33°27.62'/W117°42.87'
VPLSP	SIGNAL PEAK	N33°36.33'/W117°48.63'
VPOCN	_____	N33°14.15'/W117°26.63'
VPSBC	BARONA CASINO	N32°56.25'/W116°52.60'
VPSBL	_____	N33°05.18'/W117°18.55'
VPSBM	BLACK MOUNTAIN	N32°58.87'/W117°07.00'
VPSCF	_____	N32°48.55'/W117°09.17'
VPSCM	COWLES MOUNTAIN	N32°48.72'/W117°01.97'
VPSCP	CRYSTAL PIER	N32°47.77'/W117°15.42'
VPSCR	_____	N32°39.37'/W117°07.30'
VPSFB	IRON MOUNTAIN	N32°58.25'/W116°57.33'
VPSLJ	LAKE JENNINGS	N32°51.53'/W116°53.28'
VPSMB	_____	N32°45.57'/W117°12.22'
VPSMP	_____	N33°22.70'/W117°36.75'
VPSMS	MOUNT SOLEDAD	N32°50.40'/W117°15.10'
VPSMV	_____	N32°45.75'/W117°09.80'
VPSMW	MOUNT WOODSON	N33°00.52'/W116°58.23'
VPSOP	OTAY MESA PRISON	N32°35.82'/W116°55.28'
VPSOT	LOWER OTAY LAKE	N32°37.73'/W116°55.38'
VPSPL	SOUTH POINT LOMA	N32°39.90'/W117°14.55'
VPSPP	POWER PLANT	N33°08.25'/W117°20.23'
VPSQS	QUALCOMM STADIUM	N32°46.98'/W117°07.23'
VPSRT	DEL MAR RACE TRACK	N32°58.58'/W117°15.95'
VPSSM	SAN MIGUEL MOUNTAIN	N32°41.78'/W116°56.18'
VPSSV	SAN VICENTE ISLAND	N32°55.53'/W116°55.00'
VPSTP	TORREY PINES GOLF COURSE	N32°54.17'/W117°14.68'
VPSVA	_____	N33°11.48'/W117°16.38'

SAN FRANCISCO SECTIONAL CHART

VPKBG	KINGSBURY GRADE	N38°58.75'/W119°53.20'
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SAN FRANCISCO TERMINAL AREA CHART/FLYWAY CHART

VPALT	ALTAMONT PASS	N37°44.35'/W121°35.42'
VPANT	ANTIOCH BRIDGE	N38°01.45'/W121°45.02'
VPBBR	BENICIA BRIDGE	N38°02.50'/W122°07.45'
VPCL	CALAVERAS RESERVOIR	N37°28.16'/W121°48.93'
VPGBT	LAKE CHABOT	N37°43.68'/W122°06.94'
VPCTO	COYOTE HILLS	N37°32.50'/W122°05.06'
VPCTZ	CARQUINEZ BRIDGE	N38°03.66'/W122°13.52'
VPCLL	_____	N37°11.00'/W121°41.06'
VPCTY	CRYSTAL SPRINGS CAUSEWAY	N37°30.56'/W122°21.10'

WAYPOINT IDENT

VPCSH
VPDAM
VPDLR
VPDUB
VPEMB
VPGGF
VPGIL
VPHHH
VPKGO
VPLEX
VPMID
VPMOR
VPNUM
VPPAC
VPPRU
VPSAR
VPSLA
VPSTB
VPSUN
VPUTC
VPWAL
VPWAM
VPWFR

COLLOCATED VFR CHECKPOINT

CAL STATE UNIVERSITY
DEL VALLE DAM

DUBLIN
EMBASSY SUITES
GOLDEN GATE FIELDS
GILROY
HAMILTON
KGO
LEXINGTON RESERVOIR
MID-SPAN SAN MATEO BRIDGE
MORMON TEMPLE
NUMMI PLANT

PRUNEYARD
SARATOGA
SLAC/LINEAR ACCELERATOR
STINSON BEACH
SUNOL GOLF COURSE
U.T.C.
WALNUT CREEK

CEMENT PLANT

LOCATION

N37°39.52'/W122°03.52'
N37°36.91'/W121°44.78'
N37°07.00'/W121°47.06'
N37°42.06'/W121°55.36'
N37°26.05'/W121°53.83'
N37°53.07'/W122°18.71'
N37°01.37'/W121°33.99'
N38°03.58'/W122°30.66'
N37°31.58'/W122°06.10'
N37°11.66'/W121°59.18'
N37°36.28'/W122°11.81'
N37°48.46'/W122°11.95'
N37°29.56'/W121°56.58'
N37°38.00'/W122°32.07'
N37°17.33'/W121°56.01'
N37°15.26'/W122°02.33'
N37°24.75'/W122°14.35'
N37°54.45'/W122°40.41'
N37°34.85'/W121°53.23'
N37°13.93'/W121°41.35'
N37°53.78'/W122°04.30'
N37°30.28'/W122°10.00'
N37°30.88'/W122°12.26'

TAMPA/ORLANDO TERMINAL AREA CHART/FLYWAY CHART

VPBOV
VPCNY
VPDAD
VPDFI
VPDUT
VPEAR
VPFFU
VPGPE
VPHUC
VPKER
VPLEV
VPLJA

DADE CITY

CLEARWATER BEACH

ST PETE BEACH

LAKE PARKER

N27°57.00'/W080°46.75'
N28°30.00'/W080°45.00'
N28°22.57'/W082°11.25'
N29°00.17'/W081°20.85'
N27°37.70'/W082°09.10'
N27°58.67'/W082°49.83'
N28°57.08'/W081°00.33'
N27°43.50'/W082°44.67'
N28°19.87'/W082°43.77'
N28°04.00'/W081°56.00'
N28°48.00'/W080°52.00'
N29°00.00'/W080°51.00'

WASHINGTON SECTIONAL CHART

VPACE
VPAXI
VPBRA
VPGCE
VPWZO

N38°07.82'/W076°48.75'
N38°34.57'/W076°20.38'
N36°13.75'/W076°08.08'
N36°03.90'/W076°36.42'
N36°00.87'/W075°40.07'

VOR RECEIVER CHECK VOR RECEIVER CHECKPOINTS AND VOR TEST FACILITIES (VOT)

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The use of VOR airborne and ground checkpoints is explained in Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

NOTE: Under columns headed "Type of Checkpoint" & "Type of VOT Facility" G stands for ground. A/ stands for airborne followed by figures (2300) or (1000-3000) indicating the altitudes above mean sea level at which the check should be conducted. Facilities are listed in alphabetical order, in the state where the checkpoints or VOTs are located.

ILLINOIS

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Centralia (Centralia Muni)	115.0/ENL	A/2000	027	6.1	Over apch end Rwy 36.
Champaign (Urbana)	110.0/CMI	A/2000	177	7.8	Over grain elevator at Pesotum.
Champaign (University of Illinois-Willard) ...	110.0/CMI	G	332	0.9	On runup pad Rwy 14L.
Decatur (Decatur)	117.2/DEC	A/1700	348	5.4	Over apch end Rwy 36.
Galesburg	109.8/GBG	A/3000	237	12	Over railroad bridge.
Jacksonville	108.6/IJX	A/1600	137	11.1	Over railroad crossing 2 NM NW of Franklin.
Joliet (Aurora Muni)	112.3/JOT	A/2500	331	15	Over intersection of rwsy.
Joliet (Joliet Rgnl)	112.3/JOT	A/1500	102	6.5	Over centerline of NW end of Rwy 04-22.
Lawrenceville (Lawrenceville-Vincennes Intl)	108.8/LWV	G	177	.6	South side of Echo.
Marion (Williamson Co Rgnl)	110.4/MWA	A/1500	287	11	Railroad intersection in town of De Soto.
	110.4/MWA	G	139	.5	On parallel twy to Rwy 29.
Mattoon/Charleston (Coles Co Memorial) ...	109.4/MT0	G	066	7	Runup pad Rwy 24. VOR checkpoint unusable.
Moline (Quad City Intl)	114.4/MZV	A/2000	034	9.8	Over intersection of Rwsy 05-23, 09-27, 13-31.
Mount Vernon (Mount Vernon)	113.8/VNN	G	223	3.2	At intersection of taxiways B and B2.
Peoria (Greater Peoria Rgnl)	115.2/PIA	A/2000	100	4.9	Over intersection Rwsy 13-31 and 4-22.
Quincy (Quincy Rgnl-Baldwin Fld)	113.6/UIN	G	029	6.6	On W side of terminal ramp.
Roberts	116.8/RBS	A/2000	151	7.8	Over grain elevator in Paxton, IL.
Rockford (Chicago/Rockford Intl)	110.8/RFD	G	108	5.1	Over intersection of twys A/B/D.
Samsville (Mount Carmel Muni)	116.6/SAM	A/1500	063	18.4	Over intersection of Rwsy 04-22 and 13-31.
Troy (St Louis Rgnl)	116.0/TOY	A/1600	322	11	Over intersection of N/S and NW/SE rwsy.
Vandalia (Vandalia Muni)	114.3/VLA	A/1700	177	5.8	Over centerline at N end N/S rwy.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Chicago (Midway)	111.0	G	
Chicago (O'Hare)	112.0	G	

VOR RECEIVER CHECK INDIANA

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Boiler (Purdue Univ)	115.1/BVT	A/1800	286	12	Over water twr in town of Fowler.
Goshen (Goshen Muni)	113.7/GSH	A/2000	090	10.7	Over center of E/W rwy.
Hoosier (Monroe County)	110.2/OOM	G	349	.9	On runup pad Rwy 17.
Huntingburg	109.2/HNB	A/2500	010	8	Over water tower S edge Jasper.
Kokomo (Kokomo Muni)	113.5/OKK	G	242	.6	On taxiway A at AER 05.
Marion (Marion Muni)	108.6/MZZ	G	206	.6	Runup Pad Rwy 04
Muncie (Delaware Co-Johnson Fld)	114.4/MIE	A/2500	181	5.8	Over intersection of highway and railroad.
	114.4/MIE	G	328	0.7	On taxiway A-4 on runup area for Rwy 14.
Pocket City (Evansville Rgnl)	113.3/PXV	A/2000	056	13	Over intersection of E/W and NE/SW rws.
Terre Haute (Sky King)	115.3/TTH	A/2000	300	7	Over intersection of E/W and N/S rws.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Fort Wayne Intl	111.0	G	
Indianapolis Intl	109.6	G	

MICHIGAN

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Alpena (Alpena Co Rgnl)	108.8/APN	G	203	1.1	On runup for Rwy 01.
Au Sable (Oscoda-Wurtsmith)	116.1/ASP	G	249	.9	Approach end Rwy 6.
	116.1/ASP	G	063	1.0	Approach end Rwy 24.
Battle Creek (W.K. Kellogg)	109.4/BTL	A/2000	096	11.3	NS and EW highway intersection.
Escanaba	110.8/ESC	A/2500	002	14.5	Over microwave twr 1 NM S of Perkins.
Gaylord (Gaylord Rgnl)	109.2/GLR	G	077	.6	SE corner of ramp.
Grand Rapids (Gerald R Ford Intl)	115.95/GRR	A/2500	231	10	Over intersection of N/S highway & E/W road 1 NM W of Wayland.
Houghton (Houghton Co Meml)	112.8/CMX	A/2300	077	13.5	Over smoke stack.
Kalamazoo (Kalamazoo/Battle Creek Intl) ..	109.0/AZO	G	167	.7	On twy to Rwy 35.
Lansing (Capital City)	110.8/LAN	G	058	5.4	On Twy C; 500 E of apch end Rwy 06.
Litchfield	111.2/LFD	A/2000	328	17.5	Over intersection of NS/EW expressway.
Manistique (Schoolcraft County)	110.4/ISQ	A/2400	078	13.2	Over railroad intersection.
Muskegon (Muskegon County)	115.2/MKG	A/2000	272	8.4	Over intersection of NW/SE and NE/SW rws.
Peck (St Clair County Intl)	114.0/ECK	A/2000	166	22.5	Over apch end Rwy 04.

VOR RECEIVER CHECK

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Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Pellston (Cheboygan City-County)	111.8/PLN	A/2000	084	6.4	Over center of E/W rwy.
Pellston (Pellston Rgnl Arpt of Emmet Co) ...	111.8/PLN	G	241	6.4	At intersection of N/S and E/W twys.
Pontiac (Oakland Co Intl)	111.0/PSI	G	113	5.8	On circle on warmup pad apch end Rwy 27L.
	111.0/PSI	G	120	5.0	On circle on warmup pad apch end Rwy 09R.
Saginaw	112.9/MBS	A/1700	058	6.7	Over intersection US 10 and I-75.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Detroit City	111.6	G	
Detroit (Detroit Metropolitan Wayne Co.)..	109.8	G	

OHIO

VOR RECEIVER CHECKPOINTS

Facility Name (Airport Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Buckeye (Port Bucyrus-Crawford Co)	109.8/BUD	A/2500	027	10.5	Over intersection E/W grass strip and Rwy 04-22.
Dryer (Loraine County Rgnl)	113.6/DJB	G	222	1.3	At intersection of taxiway and ramp.
Jefferson (Ashtabula Co)	115.2/JFN	G	067	2.4	On ramp.
Jefferson (Germack)	115.2/JFN	A/2000	278	9.0	At intersection of E/W interstate highway and N-S highway south of town of Geneva Ohio.
Mansfield (Shelby Community)	108.8/MFD	A/2000	277	4.8	Over hangar NW corner of arpt.
Mansfield (Mansfield Lahm Rgnl)	108.8/MFD	G	134	4.7	At intersection of taxiways A and D.
Springfield (Springfield-Beckley Muni)	113.2/SGH	G	050	1.2	On NE taxiway abeam approach end Rwy 24.
Waterville (Fulton Co.)	113.1/VWV	A/1800	295	24.2	Over hangar on WSW side of arpt.
Zanesville (Zanesville Muni)	111.4/ZZV	A/2000	270	5.5	Over water tank.
	111.4/ZZV	G	028	.5	On taxiway near apch end of Rwy 22.

VOR RECEIVER CHECK VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Akron Canton Rgnl	110.6	G	
Cincinnati Muni Arpt Lunken Field	108.4	G	
Cleveland Hopkins Intl	110.4	G	
Columbus (Port Columbus Intl.)	111.0	G or	
		A/2300–5000	Within 10 NM radius of airport.
Dayton (James M Cox Dayton Intl.)	111.0	G or	Within a 10 NM radius of arpt.
		A/2500–4000	
Sidney (Sidney Muni)	111.0	A/2500–4000	

WISCONSIN

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Eau Claire (Chippewa Valley Rgnl)	112.9/EAU	G	182	2.1	Center of ramp.
Green Bay (Austin Straubel Intl)	115.5/GRB	G	141	4.6	On Twy M1 at Rwy 18R apch end.
Janesville	114.3/JVL	A/1900	287	12.7	Over water tower N of Brodhead.
Janesville (Southern Wisconsin Rgnl)	114.3/JVL	G	035	4.3	On taxiway A1.
Kenosha (Sylvania)	109.2/ENW	A/2100	353	5.9	Over N/S interstate highway bridge over E/W highway N of arpt.
LaCrosse (La Crosse Muni)	108.4/LSE	G	356	1.0	Runup pad AER Rwy 18.
Madison (Dane Co Rgnl/Truax Fld)	108.6/MSN	G	151	0.6	On NE corner air national guard ramp adjacent to taxiway D.
Manitowoc (Manitowoc Co)	111.0/MTW	G	196	0.5	SW corner of terminal ramp.
Oshkosh (Wittman Rgnl)	111.8/OSH	G	282	0.6	On taxiway at Rwy 09 apch end
	111.8/OSH	G	173	0.7	On N/S taxiway abeam control tower.
Rhineland (Rhineland–Oneida Co)	109.2/RHI	G	212	0.5	At intersection of E–W taxiway at terminal.
Sheboygan Falls (Sheboygan Co Meml)	110.0/FAH	G	232	.4	On taxiway at Rwy 03 apch end.
Stevens Point (Stevens Point Muni)	110.6/STE	A/2500	257	12.1	Over N/S railroad and E/W road in Rudolph.
	110.6/STE	G	022	0.6	From AER 21.
Wausau (Central Wisconsin)	111.6/AUW	A/2800	222	5.5	Over intersection of N–S and E–W rwy.
West Bend	109.8/BJB	A/2500	220	7.6	Over microwave tower E of Slinger.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Milwaukee (Gen Mitchell Intl)	109.0	G	

PARACHUTE JUMPING AREAS

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The following tabulation lists all reported parachute jumping sites in the area of coverage of this directory. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions. The busiest periods of activity are normally on weekends and holidays, but jumps can be expected at anytime during the week at the locations listed. Jumps within restricted airspace are not listed.

All times are local and altitudes MSL unless otherwise specified.

Contact facility and frequency is listed at the end of the remarks, when available, in bold face type.

Refer to Federal Aviation Regulations Part 105 for required procedures relating to parachute jumping.

Organizations desiring listing of their jumping activities in this publication should contact the nearest FSS, tower or ARTCC.

Qualified parachute jumping sites will be depicted on the appropriate visual chart(s).

Note: (c) in this publication indicates that the parachute jump area is charted.

To qualify for charting, a jump area must meet the following criteria:

- (1) Been in operation for at least 1 year.
- (2) Operate year round (at least on weekends).
- (3) Log 4,000 or more jumps each year.

In addition, jump sites can be nominated by FAA Regions if special circumstances require charting.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
ILLINOIS			
(c) Carmi Muni	19.7 NM; 298°Pocket City.....	9,500 AGL	3 NM radius. SR-SS weekends.
Deer Grove	25 NM; 343°Bradford	12,500	3 NM radius. SR-SS Year round.
Greenville Arpt	18 NM; 210°Vandalia	13,500	3 NM radius. Weekends and holidays, SR-1 hour after SS. Kansas City Center 127.7
(c) Hinckley Arpt	22 NM; 308°Joliet.....	14,500 AGL	2 NM radius. Mon-Fri 0800 to 1 hour after SS, Sat-Sun 0700 to 1 hour after SS.
(c) Minier, Illinois Valley Parachute Club Arpt	25 NM; 122°Peoria	15,000	Daily SR to 1 hour after SS.
(c) Ottawa, Skydive Chicago Arpt	23.1 NM; 250° Joliet.....	17,500 AGL	2 NM radius. SR to 1 hour past SS.
(c) Rantoul National Aviation Center-Frank Elliott Fld	16.5 NM; 019° Champaign	13,500	2 NM radius. Daily 0600-2200.
Sterling	16 NM; 206° Polo	12,000 AGL	Year round SR-SS. 10 NM radius.
Tampico	23 NM; 200°Polo	12,500	1 NM radius. 1000-SS daily.
(c) Taylorville, Taylorville Muni.....	24 NM; 138° Spinner	15,000	5 NM radius. SR-1 hr past SS.
(c) Vandalia, Vandalia Muni	6.2 NM; 178° Vandalia	15,000	5 NM radius. Fri, Sat, Sun and holidays, SR-½ hour past SS. Kansas City Center 124.3
INDIANA			
(c) Angola, Tri-State Steuben Co Arpt	33 NM; 040°Wolf Lake	14,500	5 NM radius, Mon, Wed, Fri, Sat, Sun 0900-SS.
Cloverdale, Swope Airstrip.....	25 NM; 085° Terre Haute	12,500	5 NM radius. SR-SS daily.
(c) Connersville	14 NM; 257° Richmond	13,500	5 NM radius. Daily SR-SS.
Crawfordsville, Crawfordsville Muni	27.2 NM; 290° Brickyard	15,000	3 NM radius. Fri-Sat-Sun SR-SS.
(c) Flora, Flora Muni	22.4 NM; 272° Kokomo	13,000	5 NM radius. Weekends and holidays, 0900-SS daily. Grissom APP CON 121.05
Franklin Flying Fld	17 NM; 220° Shelbyville	13,500	5 NM radius. SR-SS daily.
(c) Goshen Muni	10 NM; 090° Goshen	14,500 AGL	1 NM radius. Weds, Fri-Sat-Sun SR-SS. South Bend Rgnl Tower 132.05
(c) Greensburg Muni	25 NM; 145° Shelbyville	12,000 AGL	2 NM radius. 0900-2000 daily.
Hobart Sky Ranch Arpt.....	15 NM; 077° Chicago Heights ...	10,000 AGL	2 NM radius. Weds, weekends 0800-SS.
Kingsbury	23 NM; 230°Gipper	1,500	0.3 NM radius. Occasional use.
Mentone	26 NM; 183° Goshen	12,500	3 NM radius. SR-SS daily.
Muncie, Horizon Fld	10 NM; 360°Muncie	13,000	Daily 0600-1900.
(c) Richmond, Richmond Muni.....	0 NM; Richmond	14,500	3 NM radius. SR-1 hour after SS-daily.
Veedersburg, Songer Arpt.....	24 NM; 220°Boiler	10,000	5 NM radius. Weekends and holidays, SR-SS.
MICHIGAN			
(c) Allegan, Padgham Fld.....	13 NM; 072° Pullman	10,700	2 NM radius. Daily SR-SS.
East Tawas, Iosco Co Arpt	8 NM; 192° Au Sable.....	15,000	5 NM radius. May-Oct SR-SS daily.
Fowlerville	20 NM; 225° Flint	12,000	5 NM radius. Apr-Oct 0800-SS.
Fremont Muni	16.2 NM; 008° Muskegon	12,000	3 NM radius. Apr-Oct Sat-Sun SR-SS.
Harbor Springs	17 NM; 235° Pellston.....	12,000	3 NM radius. May-Sep daily SR-SS.

PARACHUTE JUMPING AREAS

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
Marshall, Brooks Fld.....	14 NM; 107° Battle Creek.....	15,000	5 NM radius. Apr–Oct daily 0900–SS.
(c) Mount Pleasant Muni Arpt.....	Ø NM; Mount Pleasant.....	14,000	2 NM radius. Jan–Dec daily 0900–SS.
(c) Romeo.....	26 NM; 085° Pontiac.....	15,000	2 NM radius. Apr–Oct daily SR–SS.
(c) Saginaw, Saginaw Co H.W. Browne Arpt.....	11 NM; 125° Saginaw.....	12,000	2 NM radius. Apr–Nov daily SR–SS.
(c) Tecumseh, Meyers–Diver's.....	22 NM; 272° Carleton.....	17,000	5 NM radius. Apr–Oct daily SR–SS.
OHIO			
Alliance, Barber Arpt.....	9 NM; 155° Akron.....	13,500	5 NM radius. Mon, Wed, Thur, Fri and weekends SR–SS.
Alliance, Miller Arpt.....	10 NM; 139° Akron.....	13,500 AGL	5 NM radius. Daily SR–SS.
Bellville.....	15 NM; 168° Mansfield.....	8,500	5 NM radius. SR–SS weekend.
(c) Bowling Green, Bordner Arpt.....	8 NM; 212° Waterville.....	14,000	Daily. Radius 2 NM.
(c) Celina, Lakefield Arpt.....	26.5 NM; 298° Rosewood.....	14,000	1 NM radius. Daily SR–SS.
Centerburg, Chapman Mem.....	12 NM; 325° Appleton.....	12,000	SR–SS weekends.
(c) Chesapeake, Lawrence Co Airpark.....	26 NM; 052° Newcombe.....	11,000	1 NM radius. 0900–2300 Sat–Sun. 1600–2300 Wed–Fri.
(c) Circleville, Clark Dream Strip.....	13 NM; 332° Yellow Bud.....	17,500	2 NM radius. Wed 0600–Sun 2400. Port Columbus Intl Tower 125.95
Commercial Point.....	32 NM; 233° Appleton.....	10,000	0800–2100 Sat, Sun.
Findlay.....	9 NM; 355° Findlay.....	12,500 AGL	Daily.
Fulton County Arpt.....	24.5; 295° Waterville.....	10,500	Daily SR–SS.
(c) Garrettsville, Gates Arpt.....	11 NM; 172° Chardon.....	13,500 AGL	SR–SS daily.
Grafton, Mole Arpt.....	10 NM; 139° Dryer.....	12,500	0700–0930 daily.
Lebanon, Lebanon–Warren Co Arpt.....	21 NM; 280° Midwest.....	14,500 AGL	5 NM radius. Daily SR–SS.
Mansfield.....	4 NM; 132° Mansfield.....	3,000	3 NM radius. Tue–Fri 0800–2200. Unit training assemblies 1 weekend a month.
Ottawa, Putnam County Arpt.....	10.9 NM; 298° Findlay.....	10,500 AGL	SR–2400.
(c) Petersburg.....	16 NM; 294° Ellwood City.....	12,500 AGL	2 NM radius. Mon–Fri 1700–SS, weekends SR–SS.
(c) Rittman, Hilty Fld.....	21 NM; 314° Briggs.....	16,000 AGL	5 NM radius. Daily 1 hour before SR–1 hour after SS.
Salem, Phillis Lakefront Arpt.....	27 NM; 088° Briggs.....	10,000	Evening and weekends to SS
Stonelick Parachute Center.....	27 NM; 068° Cincinnati.....	10,000	SR–SS daily.
Sycamore.....	25 NM; 285° Mansfield.....	12,500 AGL	1 NM radius. Daily SR–SS.
Van Wert County.....	27.3 NM; 104° Fort Wayne.....	10,000	Weekdays 1600–SS, Weekends SR–SS
Vickery, Wrights Fld.....	12 NM; 270° Sandusky.....	10,000 AGL	SR–SS weekends.
(c) Xenia, Skydive Green County Inc.....	32 NM; 129° Dayton.....	12,500 AGL	Daily SR–2400.
WISCONSIN			
(c) Baldwin Arpt.....	45 NM; 095° Gopher.....	15,000 AGL	Wed–Fri 1500–½ hour past SS, Weekends SR–½ hour past SS.
(c) Bristol, Winfield Arpt.....	37.5 NM; 160° Badger.....	12,500 AGL	SR–½ hour past SS.
(c) Chippewa Falls, Wissota Arpt.....	9 NM; 070° Eau Claire.....	15,000	5 NM radius. Daily SR–1 hour past SS.
(c) East Troy Muni Arpt.....	20 NM; 190° Badger.....	14,500 AGL	SR–½ hour past SS.
Edgerton, Jana Arpt.....	20 NM; 142° Madison.....	11,000	10 NM radius. Wed–Sun & Holidays SR–SS.
(c) Fort Atkinson Muni.....	25 NM; 247° Badger.....	14,000	3 NM radius. Daily SR–SS.
Lake Delton.....	3 NM; 332° Dells.....	12,500	Daily May 15–Sept 25.
(c) Lancaster Muni Arpt.....	22.8 NM; 359° Dubuque.....	13,500 AGL	2 NM radius. Sat–Sun 0900–1 hr past SS. Wed and Fri 1500–1 hr past SS.
(c) Marshall, Mathaire Fld.....	16 NM; 058° Madison.....	12,500 AGL	SR–½ hour past SS.
(c) Oshkosh.....	8 NM; 293° Oshkosh.....	13,500 AGL	Daily SR–SS.
(c) Pulaski, Carter Arpt.....	5 NM; 350° Green Bay.....	12,000 AGL	Daily SR–SS.
(c) Shiocton.....	17 NM; 250° Green Bay.....	13,500	5 NM SR–SS daily.
(c) Superior, Richard I Bong.....	8 NM; 143° Duluth.....	12,500 AGL	3 NM radius. Daily SR–1 hour past SS.

The purpose of this bulletin is to provide major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical, VFR Terminal Area, and Helicopter Route Charts listed. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot, and major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain chart currency. The data is grouped by type and then by effective date. When a new edition of the Aeronautical Chart is published, the corrective tabulation will be removed from this bulletin. Inasmuch as this Bulletin provides major changes only, pilots should consult the airport listing in this directory for all new information. Users of U.S. World Aeronautical Charts (WAC) and U.S. Gulf Coast VFR Aeronautical Charts should consult the appropriate Sectional and VFR Terminal Area Charts for revisions.

Military Training Routes (MTRs) are shown on Sectional Aeronautical Charts, VFR Terminal Area, and Helicopter Route Charts. Only the route centerline, direction of flight and the route designator are shown —route widths and altitudes are not shown. Since these routes are subject to change every 56 days and the charts are reissued generally every 6 months, routes with a change in the alignment of the charted route centerline will be listed in this Aeronautical Chart Bulletin below. You are advised to contact the nearest FSS for route dimensions and current status for those routes affecting your flight.

CG-21 WORLD AERONAUTICAL CHART

39th Edition, 24 Sep 2009

OBSTRUCTIONS

22 Oct 2009 Add obst 1348' MSL (600' AGL), 34°15'06"N, 84°59'12"W.

Change obst from 312' MSL to 1312' MSL, 33°35'33"N, 083°58'31"W.

AIRPORTS

22 Oct 2009 Change elevation from 191' to 1911' at Blairsville arpt, 34°51'16"N, 083°59'50"W. Change runway orientation to 01/19 at Halifax-Northampton Co Rgnl arpt, 36°19'47"N, 077°38'07"W.

NAVAIDS

22 Oct 2009 No Major Changes.

AIRSPACE

22 Oct 2009 No Major Changes.

SPECIAL USE AIRSPACE

22 Oct 2009 No Major Changes.

MILITARY TRAINING ROUTES

22 Oct 2009 No Major Changes.

MISCELLANEOUS

22 Oct 2009 No Major Changes.

CHICAGO HELICOPTER ROUTE CHART**5th Edition, 12 May 2005****OBSTRUCTIONS****12 May 2005 – 7 Jul 2005** No Major Changes.**1 Sep 2005** Add obst 896' MSL (300' AGL) UC, 41°46'40"N, 87°49'16"W.**27 Oct 2005 – 5 Jul 2007** No Major Changes.**30 Aug 2007** Change group obst from 1780' MSL (1195' AGL) to 1973' MSL (1375' AGL) UC, 41°53'20"N, 87°37'36"W.**25 Oct 2007** Change obst from 1130' MSL (335' AGL) to 1195' MSL (400' AGL), 41°36'01"N, 87°58'44"W.**20 Dec 2007 – 31 Jul 2008** No Major Changes.**25 Sep 2008** Add obst 968' MSL (370' AGL) UC, 41°34'40"N, 87°31'33"W.**20 Nov 2008 – 22 Oct 2009** No Major Changes.**AIRPORTS****12 May 2005 – 7 Jul 2005** No Major Changes.**1 Sep 2005** Delete MILL ROSE arpt, 42°04'38"N, 88°09'35"W.**27 Oct 2005** Delete DARIEN-WOODRIDGE FIRE DEPT heliport, 41°45'15"N, 88°00'26"W.**22 Dec 2005 – 5 Jul 2007** No Major Changes.**30 Aug 2007** Change CTAF freq 123.05 to 122.9 at SCHAUMBURG MUNI HELISTOP heliport, 42°02'53"N, 88°03'09"W.

Delete ADDISON FIRE DEPARTMENT STATION 3 heliport, 41°55'48"N, 88°02'28"W.

25 Oct 2007 – 10 Apr 2008 No Major Changes.**5 Jun 2008** Delete LANDIS PLASTICS heli, 41°40'43"N, 87°45'45"W.

Delete CRYSTAL LAKE HOLIDAY INN heli, 42°13'14"N, 88°17'05"W.

Delete CLARK heli, 42°22'06"N, 87°59'30"W.

31 Jul 2008 – 20 Nov 2008 No Major Changes.**15 Jan 2009**

Change CHICAGO O'HARE ATCT frequencies from 120.75(S), 126.9(N), 127.925 132.7 390.9 to 120.75 126.9 (CNTR TWR), 132.7 390.9 (CNTR TWR), 135.925 (N TWR), 41°58'51"N, 87°54'23"W.

12 Mar 2009 No Major Changes.**7 May 2009** Delete SEARS MERCHANDISE GROUP heli, 42°04'35"N, 088°13'01"W.

Change CHICAGO O'HARE ATCT freq from 135.925(N TWR) to 128.15(N TWR), 41°58'51"N, 87°54'23"W.

2 Jul 2009 – 22 Oct 2009 No Major Changes.**NAVAIDS****12 May 2005 – 22 Oct 2009** No Major Changes.**AIRSPACE****12 May 2005 – 25 Sep 2008** No Major Changes.**20 Nov 2008** Change CHICAGO Class B freq from 128.45 to 133.625.**12 Mar 2009 – 22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****12 May 2005 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****12 May 2005 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****12 May 2005 – 22 Oct 2009** No Major Changes.

CHICAGO SECTIONAL
79th Edition, 22 Oct 2009

OBSTRUCTIONS

22 Oct 2009 No Major Changes.

AIRPORTS

22 Oct 2009 No Major Change.

NAVAIDs

22 Oct 2009 No Major Changes.

AIRSPACE

22 Oct 2009 No Major Changes.

SPECIAL USE AIRSPACE

22 Oct 2009 No Major Changes.

MILITARY TRAINING ROUTES

22 Oct 2009 No Major Changes.

MISCELLANEOUS

22 Oct 2009 No Major Changes.

CHICAGO TERMINAL AREA CHART
79th Edition, 22 Oct 2009

OBSTRUCTIONS

22 Oct 2009 No Major Changes.

AIRPORTS

22 Oct 2009 No Major Changes.

NAVAIDs

22 Oct 2009 No Major Changes.

AIRSPACE

22 Oct 2009 No Major Changes.

SPECIAL USE AIRSPACE

22 Oct 2009 No Major Changes.

MILITARY TRAINING ROUTES

22 Oct 2009 No Major Changes.

MISCELLANEOUS

22 Oct 2009 No Major Changes.

CINCINNATI SECTIONAL

82nd Edition, 2 Jul 2009

OBSTRUCTIONS**2 Jul 2009** No Major Changes.**27 Aug 2009** Add obst 1525' MSL (410' AGL) UC, 40°12'15"N, 82°35'03"W.

Add obst 2811' MSL (305' AGL) UC, 39°24'30"N, 79°21'41"W.

Add obst 1687' MSL (380' AGL) UC, 38°00'44"N, 82°10'09"W.

Add obst 1341' MSL (300' AGL) UC, 38°43'50"N, 81°22'53"W.

Add obst 3611' MSL (315' AGL) UC, 37°53'06"N, 80°46'24"W.

Add obst 1067' MSL (300' AGL) UC, 38°17'38"N, 82°11'57"W.

Add obst 1217' MSL (300' AGL) UC, 38°38'11"N, 81°23'43"W.

Add obst 1328' MSL (350' AGL) UC, 37°37'05"N, 84°15'43"W.

Add obst 1810' MSL (310' AGL) UC, 38°19'51"N, 79°03'36"W.

Add obst 2925' MSL (300' AGL) UC, 37°39'29"N, 80°57'29"W.

Add obst 2752' MSL (300' AGL) UC, 37°32'06"N, 80°55'20"W.

Add obst 1213' MSL (310' AGL) UC, 38°41'39"N, 83°37'34"W.

Add obst 1198' MSL (300' AGL) UC, 38°20'28"N, 82°03'56"W.

Add obst 1242' MSL (310' AGL) UC, 39°37'20"N, 82°14'33"W.

Add obst 1680' MSL (550' AGL) UC, 39°53'38"N, 79°55'58"W.

22 Oct 2009 Add obst 1224' MSL (300' AGL) UC, 39°44'58"N, 84°23'43"W.

Add obst 1358' MSL (312' AGL) UC, 39°00'37"N, 83°34'13"W.

Add obst 1629' MSL (285' AGL) UC, 36°04'48"N, 84°31'00"W.

Add obst 3434' MSL (270' AGL) UC, 36°43'42"N, 80°27'08"W.

Add obst 1674' MSL (554' AGL) UC, 39°42'28"N, 79°57'32"W.

Add obst 1403' MSL (297' AGL) UC, 38°48'04"N, 82°57'44"W.

Add obst 3226' MSL (400' AGL) UC, 40°01'35"N, 78°48'07"W.

Add obst 3190' MSL (400' AGL) UC, 40°03'28"N, 78°48'15"W.

AIRPORTS**2 Jul 2009** No Major Changes.**27 Aug 2009** Change CTAF 122.9 to 123.05 at MCCREARY arpt, 36°41'43"N, 84°23'29"W.**22 Oct 2009** Delete POWELL arpt, 36°02'40"N, 84°00'15"W.**NAVAIDS****2 Jul 2009 – 27 Aug 2009** No Major Changes.**22 Oct 2009** Delete LOUISA NDB, 38°01'13"N, 77°51'32"W.**AIRSPACE****2 Jul 2009 – 27 Aug 2009** No Major Changes.**27 Aug 2009** Revise WAVERLY, OH Class E. That airspace extending upward from 700 feet above the surface within a 9.9-mile radius of Pike County Airport.

Delete DAYTON Class C freq 127.65.

Add DAYTON Class C freqs 118.425 and 127.225.

Revise DAYTON Class C freq from 316.7 to 352.05.

22 Oct 2009 No Major Change.**SPECIAL USE AIRSPACE****2 Jul 2009 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****2 Jul 2009 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****2 Jul 2009 – 22 Oct 2009** No Major Changes.

CINCINNATI TERMINAL AREA CHART
21st Edition, 2 Jul 2009**OBSTRUCTIONS****2 Jul 2009** No Major Changes.**27 Aug 2009** Add obst 1144' MSL (258' AGL) UC, 38°42'07"N, 85°22'02"W.**22 Oct 2009** No Major Changes.**AIRPORTS****2 Jul 2009 – 22 Oct 2009** No Major Changes.**NAVAIDS****2 Jul 2009 – 22 Oct 2009** No Major Changes.**AIRSPACE****2 Jul 2009 – 22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****2 Jul 2009 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****2 Jul 2009 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****2 Jul 2009 – 22 Oct 2009** No Major Changes.

CLEVELAND TERMINAL AREA CHART
72nd Edition, 24 Sep 2009**OBSTRUCTIONS****22 Oct 2009** No Major Changes.**AIRPORTS****22 Oct 2009** Delete SHENANDOAH AIRPARK arpt, 40°55'12"N, 82°28'44"W.**NAVAIDS****22 Oct 2009** No Major Changes.**AIRSPACE****22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****22 Oct 2009** No Major Changes.**MISCELLANEOUS****22 Oct 2009** No Major Changes.

DETROIT HELICOPTER ROUTE CHART**1st Edition, 4 Aug 2005****OBSTRUCTIONS****1 Sep 2005** No Major Changes.**27 Oct 2005** Add group obst 1009' MSL (388' AGL) UC, 42°03'58"N, 83° 23'40"W.**22 Dec 2005 – 12 Mar 2009** No Major Changes.**7 May 2009** Add obst 1293' MSL (330' AGL), 42°09'30"N, 84°01'31"W.**2 Jul 2009 – 22 Oct 2009** No Major Changes.**AIRPORTS****1 Sep 2005** Add SELFRIDGE ANGB ATCT 340.7, 42°36'46"N, 82°49'54"W.**27 Oct 2005** Delete HYNES arpt, 42°36'39"N, 83°43'58"W.**22 Dec 2005 – 8 Jun 2006** No Major Changes.**3 Aug 2006** Delete CTAF freq, 122.9 at SALINE arpt., 42°08'47"N, 83°47'31"W.**28 Sep 2006 – 10 May 2007** No Major Changes.**5 Jul 2007** Delete CARRIAGE LANE arpt, 42°27'52"N, 84°02'05"W.**30 Aug 2007 – 14 Feb 2008** No Major Changes.**10 Apr 2008** Delete FULLER heliport, 42°33'34"N, 83°10'40"W.**5 Jun 2008 – 31 Jul 2008** No Major Changes.**25 Sep 2008** Add SELFRIDGE ANGB ATCT freq 225.4, 42°36'30"N, 82°50'07"W.**20 Nov 2008 – 7 May 2009** No Major Changes.**2 Jul 2009** Delete INDEPENDENCE GREEN heliport, 42°28'12"N, 83°25'09"W. Delete COBO HALL heliport, 42°19'33"N, 83°02'52"W.**27 Aug 2009 – 22 Oct 2009** No Major Changes.**NAVAIDS****1 Sep 2005 – 13 Apr 2006** No Major Changes.**8 Jun 2006** Delete LAUREL NDB, 42°14'38"N, 83°02'51"W.**3 Aug 2006 – 22 Oct 2009** No Major Changes.**AIRSPACE****1 Sep 2005 – 15 Mar 2007** No Major Changes.**10 May 2007** Change DETROIT Class B freq from 124.9 to 127.5.**5 Jul 2007 – 22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****1 Sep 2005 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****1 Sep 2005 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****1 Sep 2005 – 16 Feb 2006** No Major Changes.**13 Apr 2006** Change MEF 1¹ to 1² in quadrant 42°00' – 42°15'N, 83°15' – 83°30' W.**8 Jun 2006 – 22 Oct 2009** No Major Changes.

DETROIT SECTIONAL
79th Edition, 24 Sep 2009**OBSTRUCTIONS**

22 Oct 2009 Add obst 1193' MSL (285' AGL) UC, 41°32'32"N, 80°51'34"W.

Add obst 2540' MSL (260' AGL) UC, 41°53'03"N, 78°37'09"W.

Add obst 956' MSL (203' AGL), 42°41'02"N, 78°54'26"W.

Add obst 702' MSL (204' AGL), 42°57'23"N, 76°59'42"W.

Add obst 3226' MSL (400' AGL) UC, 40°01'35"N, 78°48'07"W.

Add obst 1001' MSL (394' AGL), 42°16'06"N, 82°16'30"W.

AIRPORTS

22 Oct 2009 Delete ZEITLER arpt, 43°29'24"N, 84°21'54"W.

Delete PEWANOGOWINK-BANKS arpt, 43°11'10"N, 83°54'04"W.

Delete SHENANDOAH AIRPARK arpt, 40°55'12"N, 82°28'44"W.

Delete MAYES arpt, 43°14'27"N, 84°52'48"W.

NAVAIDS

22 Oct 2009 No Major Changes.

AIRSPACE

22 Oct 2009 Revise MANSFIELD, OH class E airspace. That airspace extending upward from 700 feet above the surface within a 6.9-mile radius of Mansfield Lahm Regional Airport and within a 6.3-mile radius of Galion Municipal Airport, and within a 6.3-mile radius of Shelby Community Airport, and within a 6.3-mile radius of Willard Airport, and within 4 miles each side of the 137° bearing from Mansfield Lahm Regional Airport extending from the 6.9-mile radius to 11.1 miles southeast of the airport, and within 4 miles each side of the 317° bearing from Mansfield Lahm Regional Airport extending from the 6.9-mile radius to 10.7 miles northwest of the airport, and within 6.1 miles each side of the Mansfield VORTAC 307° radial extending from the 6.9-mile radius to 13.3 miles northwest of the VORTAC, and within 4.4 miles each side of the Mansfield VORTAC 130° radial extending from the 6.9-mile radius to 13.8 miles southeast of the VORTAC.

SPECIAL USE AIRSPACE

22 Oct 2009 No Major Changes.

MILITARY TRAINING ROUTES

22 Oct 2009 No Major Changes.

MISCELLANEOUS

22 Oct 2009 No Major Changes.

DETROIT TERMINAL AREA CHART**72nd Edition, 24 Sep 2009****OBSTRUCTIONS****22 Oct 2009** No Major Changes.**AIRPORTS****22 Oct 2009** No Major Changes.**NAVAIDS****22 Oct 2009** No Major Changes.**AIRSPACE****22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****22 Oct 2009** No Major Changes.**MISCELLANEOUS****22 Oct 2009** No Major Changes.**GREEN BAY SECTIONAL****78th Edition, 4 Jun 2009****OBSTRUCTIONS****2 Jul 2009** Add obst 1189' MSL (260' AGL) UC, 44°26'06"N, 87°44'04"W. Add obst 1120' MSL (320' AGL) UC, 44°14'18"N, 88°57'34"W. Add obst 1371' MSL (320' AGL) UC, 44°53'14"N, 88°53'35"W. Add obst 1402' MSL (278' AGL) UC, 45°19'53"N, 91°42'24"W. Add obst 1289' MSL (310' AGL) UC, 44°15'58"N, 89°13'31"W. Add obst 1974' MSL (320' AGL) UC, 45°43'10"N, 89°08'14"W.**27 Aug 2009** Add obst 1070' MSL (270' AGL) UC, 44°38'29"N, 91°59'35"W.

Add obst 1584' MSL (280' AGL) UC, 45°27'05"N, 91°57'04"W.

Add obst 1609' MSL (320' AGL) UC, 45°16'05"N, 91°51'33"W.

22 Oct 2009 Add obst 1796' MSL (420' AGL) UC, 47°24'20"N, 92°17'06"W.**AIRPORTS****2 Jul 2009** Delete RAMSY FARM arpt, 45°50'19"N, 87°19'20"W. Delete PEIL'S VERMILLION WINGS spb, 47°53'07"N, 92°24'18"W.**27 Aug 2009** No Major Changes.**22 Oct 2009** Delete FONTECCHIO arpt, 45°47'05"N, 88°04'05"W.**NAVAIDS****2 Jul 2009 – 27 Aug 2009** No Major Changes.**22 Oct 2009** Delete MANITOWISH NDB, 46°07'23"N, 89°52'58"W.**AIRSPACE****2 Jul 2009 – 27 Aug 2009** No Major Changes.**22 Oct 2009** Revise IRONWOOD, MI. Class E: That airspace extending upward from 700 feet above the surface within a 6.6-mile radius of Gogebic Iron County Airport and within 3.2 miles each side of the Ironwood VORTAC 104° radial extending from the 6.6-mile radius to 11.7 miles southeast of the VORTAC, and within 2.4 miles each side of the Ironwood VORTAC 260° radial extending from the 6.6-mile radius to 7 miles west of the VORTAC and within 4 miles each side of the 090° bearing from the airport extending from the 6.6-mile radius to 11.4 miles east of the airport; and that airspace extending upward from 1,200 feet above the surface within a 21-mile radius of the Ironwood VORTAC.**SPECIAL USE AIRSPACE****2 Jul 2009 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****2 Jul 2009 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****2 Jul 2009 – 22 Oct 2009** No Major Changes.

KANSAS CITY SECTIONAL
82nd Edition, 4 Jun 2009**OBSTRUCTIONS**

2 Jul 2009 Add obst 1308' MSL (358' AGL) UC, 38°14'23"N, 94°56'37"W. Add obst 1682' MSL (310' AGL) UC, 37°02'18"N, 93°34'31"W. Add obst 1012' MSL (265' AGL) UC, 39°36'08"N, 93°06'18"W. Change obst from 1656' MSL (741' AGL) to 1949' MSL (1034' AGL), 38°21'40"N, 90°32'55"W. Add obst 1129' MSL (290' AGL) UC, 38°47'46"N, 91°21'16"W.

27 Aug 2009 Add obst 1265' MSL (290' AGL) UC, 37°32'46"N, 90°12'37"W. Add obst 560' MSL (260' AGL) UC, 36°40'24"N, 89°58'57"W. Add obst 1516' MSL (260' AGL) UC, 37°39'55"N, 91°35'29"W. Add obst 1490' MSL (320' AGL) UC, 36°27'39"N, 94°27'12"W. Add obst 995' MSL (260' AGL) UC, 39°04'38"N, 90°50'02"W.

22 Oct 2009 Add obst 1635' MSL (305' AGL) UC, 36°27'17"N, 93°25'52"W. Add obst 1641' MSL (238' AGL), 37°59'00"N, 96°52'21"W. Add obst 934' MSL (520' AGL), 38°06'35"N, 90°15'30"W. Add obst 1197' MSL (260' AGL), 37°44'20"N, 90°30'11"W. Add obst 1025' MSL (275' AGL), 37°21'50"N, 90°41'52"W. Add obst 1187' MSL (255' AGL) UC, 36°46'11"N, 96°12'35"W. Add obst 1481' MSL (310' AGL) UC, 37°49'56"N, 91°33'28"W.

AIRPORTS

2 Jul 2009 Delete MARTIN arpt, 39°25'01"N, 90°35'09"W. Delete JOAN LAKE arpt, 38°12'30"N, 90°52'00"W. Delete SONTIMER arpt, 38°48'30"N, 90°36'45"W.

27 Aug 2009 Change CTAF 122.825 to 123.0 at BARTLESVILLE arpt, 36°45'51"N, 96°00'40"W. Delete SMITH arpt, 39°18'47"N, 90°16'40"W.

22 Oct 2009 No Major Changes.

NAVAIDS

2 Jul 2009 No Major Changes.

27 Aug 2009 Delete MOSBY NDB, 39°20'45"N, 94°18'27"W. Shutdown EL DORADO NDB, 37°46'46"N, 96°48'59"W.

22 Oct 2009 Shutdown BILMART NDB, 36°58'11"N, 92°40'39"W.

AIRSPACE

2 Jul 2009 No Major Changes.

27 Aug 2009 Revise MOUNT STERLING, IL Class E: That airspace extending upward from 700 feet above the surface within a 6.6-mile radius of Mount Sterling Municipal Airport. Revise FULTON, MO Class E: That airspace extending upward from 700 feet above the surface within a 6.5-mile radius of Elton Hensley Memorial Airport and within 2.6 miles each side of the 069° bearing from the Guthrie NDB extending from the 6.5-mile radius of the airport to 7 miles northeast of the NDB, and within 2.6 miles each side of the 229° bearing from the NDB extending from the 6.5-mile radius of the airport to 7 miles southwest of the NDB.

22 Oct 2009 No Major Changes.

SPECIAL USE AIRSPACE

2 Jul 2009 – 27 Aug 2009 No Major Changes.

22 Oct 2009 Add SHIRLEY A MOA: Boundary beginning at 35°19'00"N, 92°38'00"W to 35°19'00"N, 93°12'00"W to 35°38'15"N, 93°35'00"W to 36°02'00"N, 93°13'00"W to 36°02'00"N, 93°06'15"W to 36°06'00"N, 93°06'15"W to 36°06'00"N, 92°38'00"W to the point of beginning. Altitude: 11,000' MSL to but not including FL 18,000'. Time of use: 0700-1200 and 1300-1700, Monday-Friday; other times by NOTAM. Controlling agency: Memphis Cntr. Frequency: 281.55.

Add SHIRLEY B MOA: Boundary beginning at 35°19'00"N, 92°38'00"W to 36°06'00"N, 92°38'00"W to 36°06'00"N, 92°07'11"W to 35°58'53"N, 91°46'00"W to 35°19'00"N, 92°02'00"W to the point of beginning. Altitude: 11,000' MSL to but not including FL 18,000'. Time of use: 0700-1200 and 1300-1700, Monday-Friday; other times by NOTAM. Controlling agency: Memphis Cntr. Frequency: 281.55.

MILITARY TRAINING ROUTES

2 Jul 2009 No Major Changes.

27 AUG 2009 IR 504 Revised

22 Oct 2009 No Major Changes.

MISCELLANEOUS

2 Jul 2009 – 22 Oct 2009 No Major Changes.

LAKE HURON SECTIONAL
78th Edition, 24 Sep 2009

OBSTRUCTIONS

22 Oct 2009 No Major Changes.

AIRPORTS

22 Oct 2009 No Major Changes.

NAVAIDS

22 Oct 2009 No Major Changes.

AIRSPACE

22 Oct 2009 No Major Changes.

SPECIAL USE AIRSPACE

22 Oct 2009 No Major Changes.

MILITARY TRAINING ROUTES

22 Oct 2009 No Major Changes.

MISCELLANEOUS

22 Oct 2009 No Major Changes.

MINNEAPOLIS-ST. PAUL TERMINAL AREA CHART
72nd Edition, 2 Jul 2009

OBSTRUCTIONS

2 Jul 2009 – 22 Oct 2009 No Major Changes.

AIRPORTS

2 Jul 2009 – 22 Oct 2009 No Major Changes.

NAVAIDS

2 Jul 2009 – 22 Oct 2009 No Major Changes.

AIRSPACE

2 Jul 2009 – 27 Aug 2009 No Major Changes.

22 Oct 2009 Revise MINNEAPOLIS, MN. Class E. That airspace extending upward from 700 feet above the surface within a 20-mile radius of the Minneapolis-St. Paul International Airport (Wold-Chamberlain) Airport DME antenna, and within a 6.5-mile radius of the Anoka County-Blaine Airport (Janes Field), and within 4 miles each side of the 001° bearing from the Anoka County-Blaine Airport (Janes Field) extending from the 6.5-mile radius to 9.9 miles north of the airport, and within a 6.3-mile radius of the Lake Elmo Airport, and within a 6.4-mile radius of the Airlake Airport, and within 3.3 miles each side of the 084° bearing from the Farmington VORTAC extending from the 6.4-mile radius to 14.8 miles east of the Airlake Airport.

SPECIAL USE AIRSPACE

2 Jul 2009 – 22 Oct 2009 No Major Changes.

MILITARY TRAINING ROUTES

2 Jul 2009 – 22 Oct 2009 No Major Changes.

MISCELLANEOUS

2 Jul 2009 – 22 Oct 2009 No Major Changes.

PITTSBURGH TERMINAL AREA CHART

72nd Edition, 24 Sep 2009

OBSTRUCTIONS**22 Oct 2009** No Major Changes.**AIRPORTS****22 Oct 2009** No Major Changes.**NAVAIDS****22 Oct 2009** No Major Changes.**AIRSPACE****22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****22 Oct 2009** No Major Changes.**MISCELLANEOUS****22 Oct 2009** No Major Changes.

ST. LOUIS SECTIONAL

80th Edition, 2 Jul 2009

OBSTRUCTIONS**2 Jul 2009** No Major Changes.**27 Aug 2009** Add obst 1144' MSL (258' AGL) UC, 38°42'07"N, 85°22'02"W.

Add obst 1328' MSL (350' AGL) UC, 37°37'05"N, 84°15'43"W.

Add obst 865' MSL (304' AGL) UC, 37°22'45"N, 88°39'47"W.

Add obst 1265' MSL (290' AGL) UC, 37°32'46"N, 90°12'37"W.

Add obst 560' MSL (260' AGL) UC, 36°40'24"N, 89°58'57"W.

Add obst 995' MSL (260' AGL) UC, 39°04'38"N, 90°50'02"W.

Add obst 792' MSL (270' AGL) UC, 37°38'14"N, 87°38'10"W.

Add obst 865' MSL (306' AGL) UC, 39°12'53"N, 87°20'48"W.

22 Oct 2009 Add obst 1224' MSL (300' AGL) UC, 39°44'58"N, 84°23'43"W.

Add obst 1629' MSL (285' AGL) UC, 36°04'48"N, 84°31'00"W.

Add obst 916' MSL (258' AGL) UC, 40°03'49"N, 87°42'44"W.

Add obst 934' MSL (520' AGL) UC, 38°06'35"N, 90°15'30"W.

Add obst 1197' MSL (260' AGL) UC, 37°44'20"N, 90°30'11"W.

Add obst 1025' MSL (275' AGL) UC, 37°21'50"N, 90°41'52"W.

Add obst 797' MSL (330' AGL) UC, 36°34'10"N, 88°50'13"W.

Add obst 754' MSL (320' AGL) UC, 36°47'55"N, 88°30'22"W.

AIRPORTS**2 Jul 2009** No Major Changes.**27 Aug 2009** Change CAPE GIRARDEAU ATCT freq 119.0 to 125.525, 37°13'31"N, 89°34'15"W.

Change CTAF 119.0 to 125.525 at CAPE GIRARDEAU arpt, 37°13'31"N, 89°34'15"W.

Delete O'NEAL arpt, 38°41'29"N, 87°33'08"W.

Change CTAF 122.9 to 123.05 at MC CREARY CO arpt, 36°41'43"N, 84°23'29"W.

Delete HEMP RIDGE arpt, 38°09'11"N, 85°07'08"W.

Delete SMITH arpt, 39°18'47"N, 90°16'40"W.

22 Oct 2009 Delete CLARK arpt, 40°11'40"N, 86°31'23"W.

Delete POWELL arpt, 36°02'40"N, 84°00'16"W.

Delete HIGGINBOTHAM arpt, 39°20'29"N, 87°31'53"W.

NAVAIDS**2 Jul 2009 – 22 Oct 2009** No Major Changes.**AIRSPACE****2 Jul 2009** No Major Changes.**27 Aug 2009** Revise MOUNT STERLING, IL CLASS E: That airspace extending upward from 700 feet above the surface within a 6.6-mile radius of Mount Sterling Municipal Airport.

Delete DAYTON Class C freq 127.65.

Add DAYTON Class C freqs 118.425 and 127.225.

Revise DAYTON Class C freq from 316.7 to 352.05.

22 Oct 2009 No Major Changes.**SPECIAL USE AIRSPACE****2 Jul 2009 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****2 Jul 2009 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****2 Jul 2009 – 22 Oct 2009** No Major Changes.

ST. LOUIS TERMINAL AREA CHART

72nd Edition, 2 Jul 2009

OBSTRUCTIONS**2 Jul 2009** No Major Changes.**27 Aug 2009** Add obst 995' MSL (260' AGL) UC, 39°04'38"N, 90°50'02"W.**22 Oct 2009** No Major Changes.**AIRPORTS****2 Jul 2009 – 22 Oct 2009** No Major Changes.**NAVAIDS****2 Jul 2009 – 22 Oct 2009** No Major Changes.**AIRSPACE****2 Jul 2009 – 22 Oct 2009** No Major Changes.**SPECIAL USE AIRSPACE****2 Jul 2009 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****2 Jul 2009 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****2 Jul 2009 – 22 Oct 2009** No Major Changes.

TWIN CITIES SECTIONAL

78th Edition, 2 Jul 2009

OBSTRUCTIONS**2 Jul 2009** No Major Changes.**27 Aug 2009** Add windmill farm. 2608' is highest MSL, 45°57'36"N, 98°58'15"W.**22 Oct 2009** Add obst 1580' MSL (305' AGL) UC, 45°20'57"N, 95°15'14"W.

Add obst 1981' MSL (295' AGL) UC, 46°23'06"N, 100°37'17"W.

Add obst 2414' MSL (340' AGL) UC, 48°52'37"N, 100°03'24"W.

Add obst 2514' MSL (340' AGL) UC, 48°56'57"N, 100°03'14"W.

Add obst 2361' MSL (260' AGL) UC, 47°34'40"N, 100°36'13"W.

Add obst 2237' MSL (260' AGL) UC, 47°24'38"N, 100°35'22"W.

Add obst 2238' MSL (260' AGL) UC, 47°32'29"N, 100°14'40"W.

Add obst 2334' MSL (310' AGL) UC, 47°23'02"N, 100°16'57"W.

Add windmill farm. 2118' is highest MSL, 48°30'23"N, 99°54'54"W.

AIRPORTS**2 Jul 2009 – 22 Oct 2009** No Major Changes.**NAVAIDS****2 Jul 2009 – 22 Oct 2009** No Major Changes.**AIRSPACE****2 Jul 2009 – 27 Aug 2009** No Major Changes.

22 Oct 2009 Revise MINNEAPOLIS, MN. Class E. That airspace extending upward from 700 feet above the surface within a 20-mile radius of the Minneapolis-St. Paul International Airport (Wold-Chamberlain) Airport DME antenna, and within a 6.5-mile radius of the Anoka County-Blaine Airport (Janes Field), and within 4 miles each side of the 001° bearing from the Anoka County-Blaine Airport (Janes Field) extending from the 6.5-mile radius to 9.9 miles north of the airport, and within a 6.3-mile radius of the Lake Elmo Airport, and within a 6.4-mile radius of the Airlake Airport, and within 3.3 miles each side of the 084° bearing from the Farmington VORTAC extending from the 6.4-mile radius to 14.8 miles east of the Airlake Airport.

SPECIAL USE AIRSPACE**2 Jul 2009 – 22 Oct 2009** No Major Changes.**MILITARY TRAINING ROUTES****2 Jul 2009 – 22 Oct 2009** No Major Changes.**MISCELLANEOUS****2 Jul 2009 – 22 Oct 2009** No Major Changes.

SUPPLEMENTAL COMMUNICATION REFERENCE

Contained within this tabulation, and listed alphabetically by airport name, are all private-use airports charted on the U.S. IFR Enroute Low and High Altitude charts in the United States, having terminal approach and departure control facilities. Additionally, listed by country, are all Canadian and Mexican airports that appear on the U.S. IFR Enroute charts with approach and departure control services. All frequencies transmit and receive unless otherwise noted. Radials defining sectors are outbound from the facility.

UNITED STATES

FACILITY NAME	CHART & PANEL
Frankfort, IL (LL40) Chicago App/Dep Con 133.1 285.6	L-28H
Glasgow Industrial, MT (07MT) Salt Lake Center App/Dep Con 126.85 305.2	H-1E, 2F, L-13D
USAF Academy Bullseye Aux Airstrip, CO (C090) ASOS 118.325	L-10F
West Kentucky Airpark, KY (5KY3) Memphis Center App/Dep Con 133.65 292.15	L-16I
William P Gwinn, FL (06FA) Gwinn Tower 120.4 314.6 (Mon-Fri 1300-2100Z) Gnd Con 121.65 279.25	H-8I, L-23C

CANADA

FACILITY NAME	CHART & PANEL
Abbotsford, BC (CYXX) ATIS 119.8 (1500-0700Z) Victoria Trml App/Dep Con 132.7 (Avbl on ground) 290.8 Tower 119.4 (Inner) 121.0 (Outer) 295.0 (1500-0700Z) Gnd Con 121.8 MF 119.4 295.0 (0700-1500Z) (Shape irregular to 4500')	H-1B, L-12F
Amos/Magny, QC (CYEY) Montreal Center App/Dep Con 125.9	H-11B
Atikokan Muni, ON (CYIB) MF 122.3 (5 NM to 4500' No ground station)	L-14I
Barrie-Orillia (Lake Simcoe Rgnl), ON (CNB9) AWOS 122.55 (Pvt) Toronto Center App/Dep Con 124.025	H-11B, L-31D
Bar River, ON (CPF2) Toronto Center App/Dep Con 132.65	L-31C
Bathurst, NB (CZBF) Moncton Center App/Dep Con 134.25	L-32J
Boundary Bay, BC (CZBB) ATIS 125.5 (1500-0700Z) Vancouver App/Dep Con 132.3 363.8 Tower 118.1 (Inner) 127.6 (Outer) (1500-0700Z) Gnd Con 124.3 MF 118.1 (0700-1500Z to 2000'. Vancouver Trml 125.2 above 2000'. Shape irregular to 2500')	H-1B, L-1E
Brampton, ON (CNC3) Toronto Trml App/Dep Con 119.3 253.1	L-31D
Brandon Muni, MB (CYBR) Winnipeg Center App/Dep Con 132.25 285.4 MF 122.1 (5 NM to 4000')	H-2H
Brantford, ON (CYFD) Toronto Trml App/Dep Con 128.27	L-31D
Brockville-Thousand Islands Rgnl Tackaberry, ON (CNL3) Montreal Center App/Dep Con 134.675	L-32G
Bromont, QC (CZBM) Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM to 3400')	L-32G
Burlington Airpark, ON (CZBA) Toronto Center App/Dep Con 119.3 253.1	L-31D
Castlegar, BC (CYCG) Vancouver Center App/Dep Con 134.2 227.3 MF 122.1 (5 NM to 6500')	H-1C
Centralia/James T. Fld Muni, ON (CYCE) Toronto Center App/Dep Con 135.30	H-10G, 11B, L-31D
Charlottetown, PE (CYYG) Moncton Center App/Dep Con 135.65 384.8 MF 118.0 (5 NM to 3200')	H-11E, L-32J
Chatham-Kent, ON (CNZ3) Cleveland Center App/Dep Con 132.25	H-10G, L-30G

FACILITY NAME	CHART & PANEL
Collingwood, ON (CNY3) Toronto Center App/Dep Con 124.02	H-11B, L-31D
Cornwall Rgnl, ON (CYCC) Boston Center App/Dep Con 135.25 377.1	L-32G
Cranbrook/Canadian Rockies Intl, BC (CYXC) Vancouver Center App/Dep Con 133.6 MF 122.3 (5 NM to 6100')	H-1C
Debert, NS (CCQ3) Halifax Trml App/Dep Con 119.2	H-11E, L-32J
Digby, NS (CYID) Moncton Center App/Dep Con 123.9	L-32J
Downsview, ON (CYZD) Toronto Center App Con 133.4 Toronto Center Dep Con 133.4 MF 126.2 (3 NM to 1900')	H-11B, L-31E
Drummondville, QC (CSC3) Montreal Center App/Dep Con 132.35	L-32H
Earlton (Timiskaming Rgnl), ON (CYXR) MF 122.0 (5 NM to 3800') AWOS 128.6	H-11B
Elliot Lake Muni, ON (CYEL) Toronto Center App/Dep Con 135.4	L-31C
Fort Frances Muni, ON (CYAG) Minneapolis Center App/Dep Con 120.9	L-14H
Fredericton Intl, NB (CYFC) ATIS 127.55 Moncton Center App/Dep Con 124.3 135.5 270.8 Clnc Del 121.7 (Ltd hrs) MF 119.0 (5 NM to 3500')	H-11E, L-32I
Goderich, ON (CYGD) Toronto Center App/Dep 135.3 266.3	H-11B, L-31D
Greenwood, NS (CYZX) ATIS 128.85 244.3 (1100-0000Z‡) App/Dep Con 120.6 335.9 Tower 119.5 126.2 236.6 324.3 Gnd Con 133.75 289.4 Clnc Del 128.05 283.9	H-11E, L-32J
Grimsby Air Park, ON (CNZ8) Toronto Trml App/Dep Con 128.27 268.75 Tower 125.0 308.475	L-31E
Halifax/Shearwater, NS (CYAW) ATIS 129.175 (Ltd hrs) App/Dep Con 119.2 Tower 119.0 126.2 340.2 360.2 (Ltd hrs) Gnd Con 121.7 250.1	H-11E, L-32J
Halifax/Stanfield Intl, NS (CYHZ) ATIS 121.0 Moncton Center App/Dep Con 118.7 119.2 128.55 135.3 225.2 363.8 Tower 118.4 236.6 Gnd Con 121.9 275.8 Clnc Del 123.95 Apron Advisory 122.125	H-11E, L-32J
Hamilton, ON (CYHM) ATIS 128.1 Toronto Trml App/Dep Con 128.27 268.75 Tower 119.7 125.0 Gnd Con 121.6	H-10H, 11B, L-11B
Kingston, ON (CYGK) Montreal Center App/Dep Con 135.05 398.4 (0400-1115Z‡) MF 122.5 (1115-0400Z‡ 5 NM to 3300')	H-11C, L-31E, 32F
Kitchener/Waterloo, ON (CYKF) ATIS 125.1 (1200-0400Z‡) Toronto Trml App/Dep Con 128.275 Waterloo Tower 126.0 118.55 (1200-0400Z‡) Gnd Con 121.8 MF 126.0 (0400-1200Z‡ 5 NM to 4000')	H-11B, L-31D
Lachute, QC (CSE4) Montreal Center App Con 124.65 132.85 268.3 Montreal Center Dep Con 132.85 268.3	L-32G
La Tuque, QC (CYLQ) Montreal Center App/Dep Con 134.5	H-11C
Langley, BC (CYNJ) ATIS 124.5 (1630-0230Z, DT 1530-0330Z) Victoria Trml 132.7 290.8 Tower 119.0 (1630-0230Z, DT 1530-0330Z) Gnd Con 121.9 MF 119.0 (0230-1630Z, DT 0330-1530Z 3 NM to 1900')	L-1E

FACILITY NAME	CHART & PANEL
Leamington, ON (CLM2) Cleveland Center App/Dep Con 132.45	L-30F
Lethbridge, AB (CYQL) ATIS 124.4 (1300-0545Z‡) Edmonton Center App/Dep Con 132.75 265.2 MF 121.0 (5 NM to 6000')	H-1D
Lindsay, ON (CNF4) Toronto Center App/Dep Con 134.25	L-31E, L-32F
Liverpool/South Shore Rgnl, NS (CYAU) Moncton Center App/Dep Con 123.9	L-32J
London, ON (CYXU) ATIS 127.8 (1120-0345Z‡) Toronto Center App/Dep 135.3 135.625 Tower 119.4 125.65 (1120-0345Z‡) Gnd Con 121.9 MF 119.4 (0345-1120Z‡ 5 NM to 3000')	H-10G, 11B, L-30G, 31D
Manitowaning/Manitoulin East Muni, ON (CYEM) Toronto Center App/Dep 135.4 260.9	L-31C
Maniwaki, QC (CYMW) Montreal Center App/Dep Con 126.57	L-32G
Mascouche, QC (CSK3) MF 122.35 (5 NM to 2500'. No gnd station. Excluding the portion S of the N shore of Riviere des Milles-Iles and 1 NM around Lac Agile Mascouche arpt.)	L-32G
Medicine Hat, AB (CYXH) AWOS 124.875 (0345-1245Z‡) MF 122.2 (1245-0345Z‡ 5 NM to 5400')	H-1D
Midland/Huronina, ON (CYEE) Toronto Center App/Dep 124.025	L-31D
Miramichi, NB (CYCH) Moncton Center App/Dep Con 123.7	H-11E, L-32J
Moncton/Greater Moncton Intl, NB (CYQM) ATIS 128.65 App/Dep 124.4 Tower 120.8 236.6 Gnd Con 121.8 275.8 Apron Advisory 122.075	H-11E, L-32J
Mont-Laurier, QC (CSD4) Montreal Center App/Dep Con 126.57	L-32G
Montreal Intl (Mirabel), QC (CYMX) ATIS 125.7 Montreal Center App Con 124.65 132.85 268.3 Montreal Dep Con 132.85 MF 119.1 (7 NM shape irregular to 2000') VFR Advisory 134.15	H-11C, 12K, L-32G
Montreal/Pierre Elliott Trudeau Intl, QC (CYUL) ATIS 133.7 Montreal Trml App Con 118.9 124.65 126.9 132.85 268.3 Tower 119.9 267.1 Gnd Con 121.9 275.8 Clnc Del 125.6 Apron 122.075 Montreal Trml Dep Con 118.9 (SE-S-SW) 124.65 268.3 (W-NW-NE) VFR Advisory 134.15	H-11C, 12K, L-32G
Montreal/St-Hubert, QC (CYHU) ATIS 124.9 (Apr-Oct 1045-0500Z‡, Nov-Mar 1045-0400Z) AWOS 124.9 Montreal Center App/Dep Con 125.15 268.3 St. Hubert Tower 118.4 (Apr-Oct 1045-0500Z‡, Nov-Mar 1045-0400Z) Gnd Con 126.4 MF 118.4 (Apr-Oct 0500-1045Z‡, Nov-Mar 0400-1045Z 5 NM shape irregular to 2500') VFR Advisory 134.15	H-11C, L-32G
Muskoka, ON (CYQA) AWOS 124.575 MF 122.3 (5 NM to 3900')	H-11B, L-31D
Nanaimo, BC (CYCD) Victoria Trml App/Dep 120.8 133.95 252.3 MF 122.1 1330-0530Z‡ (5 NM to 2500')	H-1B, L-1E
North Bay, ON (CYYB) ATIS 124.9 (1130-0300Z‡) Toronto Center App/Dep 121.225 127.25 MF 118.3 (1130-0330Z‡ 7 NM to 5000')	L-31E
Oshawa, ON (CYOO) ATIS 125.675 (1130-0330Z‡) Toronto Trml App Con 133.4 Tower 120.1 (1130-0330Z‡) Gnd Con 118.4 Toronto Trml Dep Con 133.4 MF 120.1 (0330-1130Z‡ 5 NM to 3000')	H-11B, L31D

FACILITY NAME	CHART & PANEL
Ottawa/Carp, ON (CYRP) ATIS 121.15 Ottawa Trml App/Dep Con 128.175 252.5	L-31E, 32F
Ottawa/Gatineau, QC (CYND) Ottawa Trml App/Dep Con 127.7 128.175 252.5 MF 122.3 (5 NM shape irregular to 2500') VFR Advisory Ottawa Trml 127.7	H-11C, L-32G
Ottawa/MacDonald-Cartier Intl, ON (CYOW) ATIS 121.15 Ottawa App Con 135.15 Tower 118.8 120.1 341.3 Gnd Con 121.9 CInc Del 119.4 Ottawa Dep Con 128.175	L-11C
Owen Sound/Billy Bishop Rgnl, ON (CYOS) Toronto Center App/Dep 132.575 290.6	L-31D
Pelee Island, ON (CYPT) Cleveland Center App/Dep Con 126.35 360.0	L-30F
Pembroke, ON (CYTA) Montreal Center App/Dep Con 135.2 Petawawa Advisory 126.4 250.1 (Mon-Fri 1300-2130Z†, OT PPR)	H-11C, L-31E, 32F
Penticton, BC (CYF) Vancouver Center App/Dep Con 133.5 351.3 MF 118.5 (5 NM to 4100')	H-1B
Peterborough, ON (CYPQ) AWOS 126.925 Toronto Center App/Dep 134.25	H-11B, L-31E, 32F
Pincher Creek, AB (CZPC) Edmonton Center App/Dep Con 132.75 265.2	H-1D
Pitt Meadows, BC (CYPK) ATIS 125.0 (1500-0700Z†) Vancouver Center App Con 128.6 352.7 (Outer) Pitt Tower 126.3 (1500-0700Z†) Gnd Con 123.8 Vancouver Center Dep Con 132.3 363.8 (South) MF 126.3 (0700-1500Z†) (3NM to 2500')	L-1E
Quebec/Jean Lesage Intl, QC (CYQB) ATIS 134.6 Montreal Center App/Dep Con 124.0 127.85 135.025 270.9 322.8 (185.65 Quebec Twr VFR acft at or below 3000') Tower 118.65 236.6 Gnd Con 121.9 250.0	H-11D, L-32H
Riviere Du Loup, QC (CYRI) AWOS 122.025 (Pvt) Montreal Center App/Dep Con 125.1 299.6	H-11D
Rouyn Noranda, QC (CYUY) Montreal Center App/Dep Con 125.9 MF 122.2 (5 NM to 4000')	H-11B
Saint John, NB (CYSJ) Moncton Center App/Dep Con 124.3 135.5 270.8 MF 118.5 (5 NM to 3400')	H-11E, L-32J
Sarnia (Chris Hadfield), ON (CZYR) Toronto Center 134.375	H-10G, 11B, L-30F
Sault Ste Marie, ON (CYAM) ATIS 133.05 (1300-0100Z†) Toronto Center App/Dep Con 132.65 344.5 Tower 118.8 (1300-0100Z†) Gnd Con 121.7 MF 118.8 (0100-1300Z† 5 NM irregular shape to 3000')	H-2K, L-31B
Sherbrooke, QC (CYAM) AWOS 126.25 Montreal Center App/Dep Con 132.55 MF 123.5 (Ltd hrs 5 NM to 3800')	H-11D, L-32H
South Renfrew Muni, ON (CNP3) Montreal Center App/Dep 124.275	L-31E, 32F
Southport, MB (CYPG) ATIS 120.85 (Mon-Fri 1400-2300Z† except holidays) Tower 126.2 384.2 (Mon-Fri 1400-2300Z† except holidays) Gnd Con 121.7 275.8	H-2H

FACILITY NAME	CHART & PANEL
Springwater Barrie Airpark, ON (CNA3) Toronto Center App/Dep Con 124.025	L-31D
St. Catharines/Niagara District, ON (CYSN) ATIS 128.525 (1215-0200Z‡) Toronto Trml App/Dep Con 133.4 253.1 MF 123.25 (1215-0200Z‡ 5 NM to 3300')	H-10H, 11B, L-31E
St. Frederic, QC (CSZ4) Montreal Center App/Dep Con 135.025 270.9	L-32H
St. Georges, QC (CYSG) Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM 3900' ASL)	H-32H, L-11D
St. Jean, QC (CYJN) Montreal Center App/Dep Con 125.15 268.3 Tower 118.2 (Apr-Oct 1230-0230Z‡ Nov-Mar 1300-0200Z‡) Gnd Con 121.7	L-32G
Sudbury, ON (CYSB) ATIS 127.4 Toronto Center App/Dep Con 135.5 MF 125.5 (7 NM to 4000')	H-31B, 10G, L-31D
Summerside, PE (CYSU) AWOS 122.55 (Pvt) Moncton Center App/Dep Con 124.4 384.8	H-11E, L-32J
Thunder Bay, ON (CYQT) ATIS 128.8 (1100-0400Z‡) Winnipeg Center App/Dep Con 132.125 (0400-1100Z‡) Tower 118.1 (1100-0400Z‡) Gnd Con 121.9 App/Dep 119.2 MF 118.1 (0400-1100Z‡ 5 NM to 4000')	H-2J, L-14J
Timmins, ON (CYTS) ATIS 124.95 (1000-0500Z‡) Toronto Center App/Dep Con 128.3 226.3 MF 122.3 (5 NM to 4000')	H-11B
Toronto/Buttonville Muni, ON (CYKZ) ATIS 127.1 (1200-0400Z‡) Toronto Center App Con 133.4 Toronto Center Dep Con 133.4 Tower 124.8 119.9 (1200-0400Z‡) Gnd Con 121.8 MF 124.8 (0400-1200Z‡ No gnd station. 5 NM shape irregular to below 2500')	L-31E
Toronto/City Centre, ON (CYTZ) ATIS 133.6 (1130-0400Z‡) App Con 133.4 Dep Con 133.4 Tower 118.2 119.2 226.5 (1130-0400Z‡) Gnd Con 121.7	L-31E
Toronto/Lester B Pearson Intl, ON (YYZ) ATIS 120.825 App Con 124.475 125.4 132.8 Dep Con 127.575 128.8 Tower 118.35 118.7 Gnd Con 118.0 119.1 121.65 121.9 Clnc Del 121.3 (1200-0400Z‡) VFR Advisory 119.3 133.4	H-11B, L-31D
Trenton, ON (CYTR) ATIS 135.45 257.7 App/Dep Con 128.4 324.3 Tower 128.7 236.6 Gnd Con 121.9 275.8 Clnc Del 124.35 286.4	H-11C, L-31E, 32F
Trenton/Mountain View, ON (CPZ3) Trenton Mil Advisory 268.0	H-11C, L-31E, 32F
Trois-Rivieres, QC (CYRQ) Montreal Center App/Dep Con 128.225 229.2 MF 123.0 (5 NM to 3200')	H-11C, L-32H
Val-d'Or, QC (CYVO) Montreal Center App/Dep Con 125.9 308.3 MF 118.5 (1030-0325Z‡ 5 NM to 4000')	H-11B
Vancouver Intl, BC (CYVR) ATIS 124.6 124.75 App Con 128.6 128.17 352.7 (Outer) 133.1 134.225 352.7 (Inner) Dep Con 126.125 (north) 132.3 (south) 363.8 Tower 118.7 (south) 119.55 (north) VFR 124.0 125.65 226.5 236.6 Gnd Con 121.7 (south) 127.15 (north) 275.8 Clnc Del 121.4	H-1B, L-1E

FACILITY NAME	CHART & PANEL
Victoria Intl, BC (CYYJ) ATIS 118.8 (1400-0800Z) App Con 125.95 308.4 Dep Con 133.85 308.4 Tower 119.1 (Outer) 119.7 (Inner) 239.6 Gnd Con 121.9 361.4 (1400-0800Z) OT ctc Kamloops 119.7 Clncl Del 126.4 (1400-0800Z)	H-1B, L-1E
Victoriaville, QC (CSR3) Montreal Center App Con 132.35	L-32H
Waterville/Kings Co Muni, NS (CCW3) Greenwood Trml App/Dep Con 120.6 335.9 Greenwood Tower 119.5 324.3	L-32J
Warton, ON (CYVW) Toronto Center App/Dep Con 132.575 MF 122.2 (5 NM to 3700')	H-11B, L-31D
Windsor, ON (CYQG) ATIS 134.5 (1130-0330Z) Detroit App/Dep Con 126.85 127.5 134.3 348.3 363.2 Tower 124.7 (1130-0330Z) Gnd Con 121.7 MF 124.7 (0330-1130Z) 6 NM irregular shape to below 3000' VFR Advisory Detroit App Con 134.3	H-10G, L-8J
Yarmouth, NS (CYQI) Moncton Center App/Dep Con 123.9 368.5 MF 123.0 (5 NM to 3100')	H-11E, L-32I

MEXICO

FACILITY NAME	CHART & PANEL
Abraham Gonzalez Intl (MMCS) Juarez App Con 119.9 Juarez Tower 118.9	H-4K, L-6F
Del Norte Intl (MMAN) ATIS 127.55 (1300-0300Z) Monterrey App 119.75 120.4 Tower 118.6	H-7B, L-20G
Durango Intl (MMDO) ATIS 132.1 Tower 118.1 Durango Info 122.3	H-7A
General Abelardo L Rodriguez Intl (MMTJ) ATIS 127.9 Tijuana App Con 119.5 120.3 Tijuana Tower 118.1 Clncl Del 122.35 Tijuana Info 132.1	H-4H, L-4H
General Lucio Blanco Intl (MMRX) Reynosa App Con 118.8 Reynosa Tower 118.8	H-7B, L-20H
General Mariano Escobedo Intl (MMMY) ATIS 127.7 Monterrey App Con 119.75 120.4 Monterrey Tower 118.1 Gnd Con 121.9	H-7B, L-20G
General R Fierro Villalobos Intl (MMCU) ATIS 127.9 Chihuahua App Con 121.0 Chihuahua Tower 118.4	L-6I
General Rodolfo Sanchez Taboada Intl (MMML) ATIS 127.6 Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3	H-4H, L-4J, 5A
General Servando Canales (MMMA) Matamoros App Con 118.0 Matamoros Tower 118.0	H-7C, L-21A
Plan De Guadalupe Intl (MMIO) Saltillo App Con 127.4 Saltillo Tower 118.4	H-7B
Quetzalcoatl Intl (MMNL) Nuevo Laredo App Con 118.3 Nuevo Laredo Tower 118.3	H-7B, L-20G
Torreon Intl (MMTC) App Con 119.6 Tower 118.5	H-7A

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




In support of the Federal Aviation Administration's Runway Incursion Program, selected towered airport diagrams have been published in the Airport Diagram section of the A/FD. Diagrams will be listed alphabetically by associated city and airport name. Airport diagrams, depicting runway and taxiway configurations, will assist both VFR and IFR pilots in ground taxi operations. The airport diagrams in this publication are the same as those published in the U.S. Terminal Procedures Publications. For additional airport diagram legend information see the U.S. Terminal Procedures Publication.

NOTE: Some text data published under the individual airport in the front portion of the A/FD may be more current than the data published on the Airport Diagrams. The airport diagrams are updated only when significant changes occur.

GENERAL INFORMATION





PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

Available pilot controlled lighting (PCL) systems are indicated as follows:

1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g., , , .
2. Approach lighting systems that do not bear a system identification are indicated with a negative "0" beside the name. A star (★) indicates non-standard PCL, consult the individual airport in the front portion of the A/FD, e.g., ★. To activate lights use frequency indicated in the communication section of the chart with a  or the appropriate lighting system identification e.g., UNICOM 122.8 , , .

<u>KEY MIKE</u>	<u>FUNCTION</u>
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-off)

CHART CURRENCY INFORMATION

FAA procedure amendment number  Amdt 11A 99365  Date of latest change
 Orig 00365 

The Chart Date identifies the Julian date the chart was added to the volume or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest addition or change was first published.

The Procedure Amendment Number precedes the Chart Date, and changes any time instrument information (e.g., DH, MDA, approach routing, etc.) changes. Procedure changes also cause the Chart Date to change.

MISCELLANEOUS

- ★ Indicates a non-continuously operating facility, see the individual airport in the front portion of the A/FD.
- # Indicates control tower temporarily closed UFN.

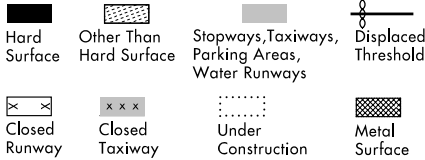
09071

LEGEND

INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM

Runways



ARRESTING GEAR: Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.



ARRESTING SYSTEM

REFERENCE FEATURES

Buildings.....	■
Tanks.....	●
Obstructions.....	▲
Airport Beacon #.....	☆
Runway	
Radar Reflectors.....	▼
Control Tower #.....	■
Hot Spot.....	○

When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.

A **D** symbol is shown to indicate runway declared distance information available, see appropriate A/FD, Alaska or Pacific Supplement for distance information.

Runway Weight Bearing Capacity/or PCN Pavement Classification Number is shown as a codified expression.

Refer to the appropriate Supplement/Directory for applicable codes e.g., RWY 14-32 S75, T185, ST175, TT325
PCN 80 F/D/X/U

Helicopter Alighting Areas ① ⊕ ⊕ ⊕ ⊕

Negative Symbols used to identify Copter Procedures landing point..... ⊖ ⊕ ⊕ ⊕ ⊕

Runway Threshold elevation.....THRE 123

Runway TDZ elevation.....TDZE 123

Runway Slope.....0.3% DOWN

(shown when runway slope is greater than or equal to 0.3%)
0.8% UP

NOTE:

Runway Slope measured to midpoint on runways 8000 feet or longer.

U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Approach light symbols are shown in the Flight Information Handbook.

Airport diagram scales are variable.

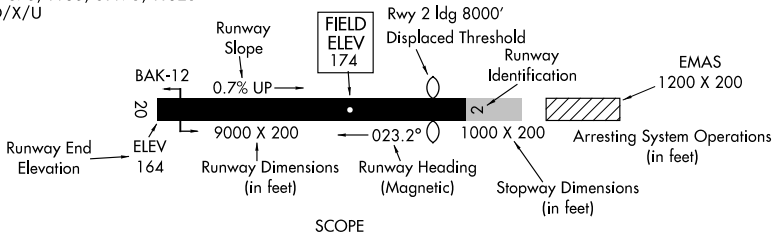
True/magnetic North orientation may vary from diagram to diagram

Coordinate values are shown in 1 or ½ minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.

Positional accuracy within ±600 feet unless otherwise noted on the chart.

NOTE:

All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in FUP. (Foreign Only)



Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations and provide information for updating Computer Based Navigation Systems (I.E., INS, GPS) aboard aircraft. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

LEGEND

HOT SPOTS

An "Airport surface hot spot" is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

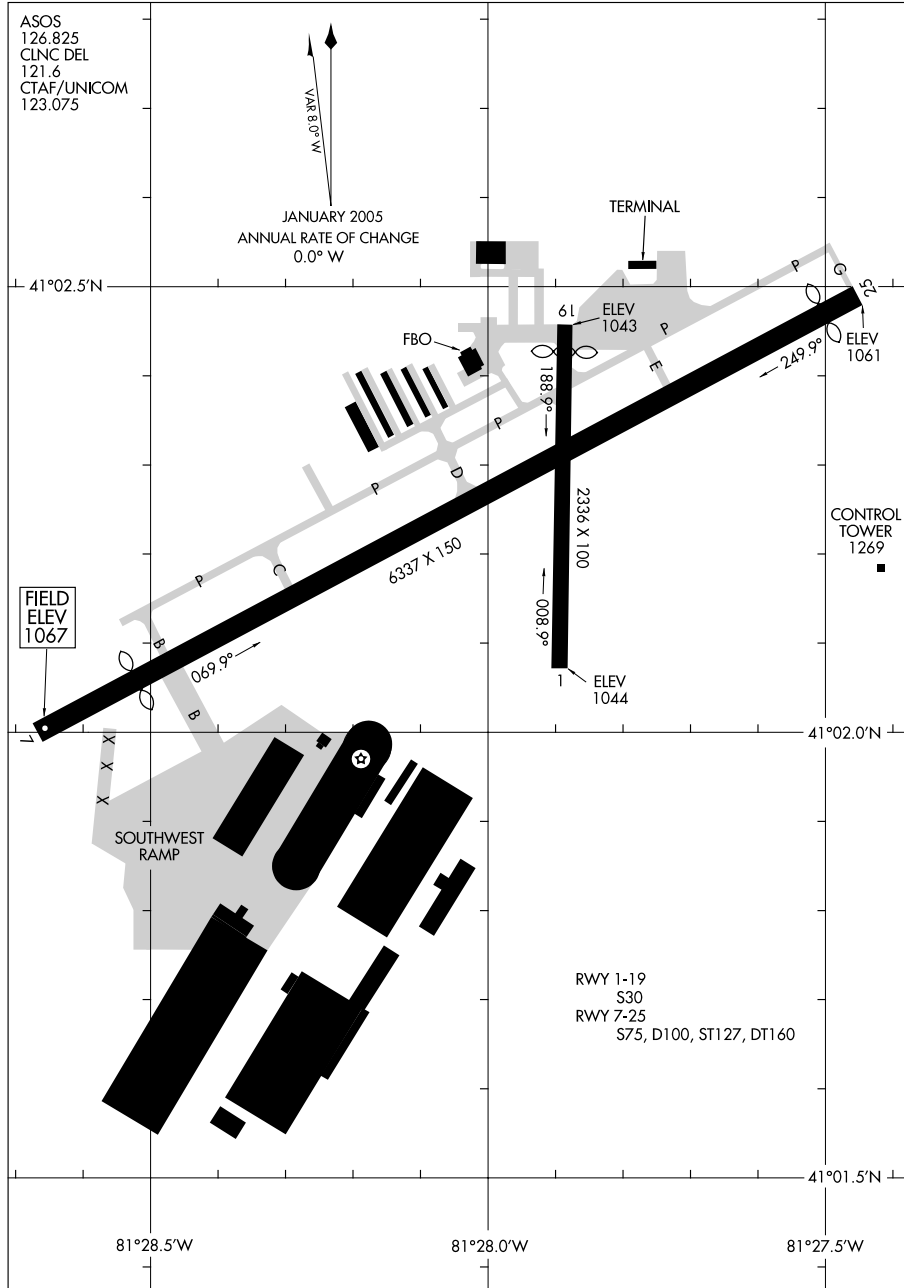
A "hot spot" is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as "HOT¹", "HOT²", etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

CITY/AIRPORT	HOT SPOT	DESCRIPTION
ILLINOIS		
MOLINE QUAD CITY INTL (MLI)	HOT ¹	Rwy 31 Non-standard hold position. Distance to edge of rwy 698'.
INDIANA		
EVANSVILLE EVANSVILLE RGNL (EVV)	HOT ¹	Pilots taxiing to Rwy 09 enter the rwy mid-field. Do not taxi to the "numbers" without ATC clearance. Rwy 09-27 is a short distance from the General Aviation Ramp-use appropriate vigilance.
	HOT ²	Pilots cleared to taxi to Rwy 27 sometimes enter the Rwy 27 without a clearance.
	HOT ³	Rwy 18-36 in close proximity to General Aviation Ramp-use appropriate vigilance.
	HOT ⁴	Rwy 18-36 in close proximity to General Aviation Ramp-use appropriate vigilance.
MICHIGAN		
JACKSON JACKSON CO-REYNOLDS FLD (JXN)	HOT ¹	Caution confusing signage.
	HOT ²	No signage.
WISCONSIN		
JANESVILLE SOUTHERN WISCONSIN RGNL (JVL)	HOT ¹	Rwy 32 and Rwy 36 approach ends are closely aligned and may be confused when lining up for departure.
MILWAUKEE GENERAL MITCHELL INTL (MKE)	HOT ¹	Pilots taxiing northbound on Twy E for an intersection departure on Rwy 19R at Twy V can end up entering Rwy 7L-25R if they miss the right turn for Twy V. To avoid a runway incursion, pilots on Twy E should use extreme caution approaching Rwy 7L-25R.
	HOT ²	Runway holding position markings for the approach end of Rwy 25L are not where you expect them to be - they are well removed from the Rwy 25L entry point. Aircraft taxiing for a Rwy 25L departure on either Twy M or Rwy 13-31, note the positions of the Rwy 25L runway holding position markings.
	HOT ³	Use caution in the area of Twy M and Rwy 1L-19R. Pavement widens out as the taxiway approaches the runway and may cause confusion.

09071

AIRPORT DIAGRAM

AL-6 (FAA)

AKRON FULTON INTL (AKR)
AKRON, OHIO

AIRPORT DIAGRAM

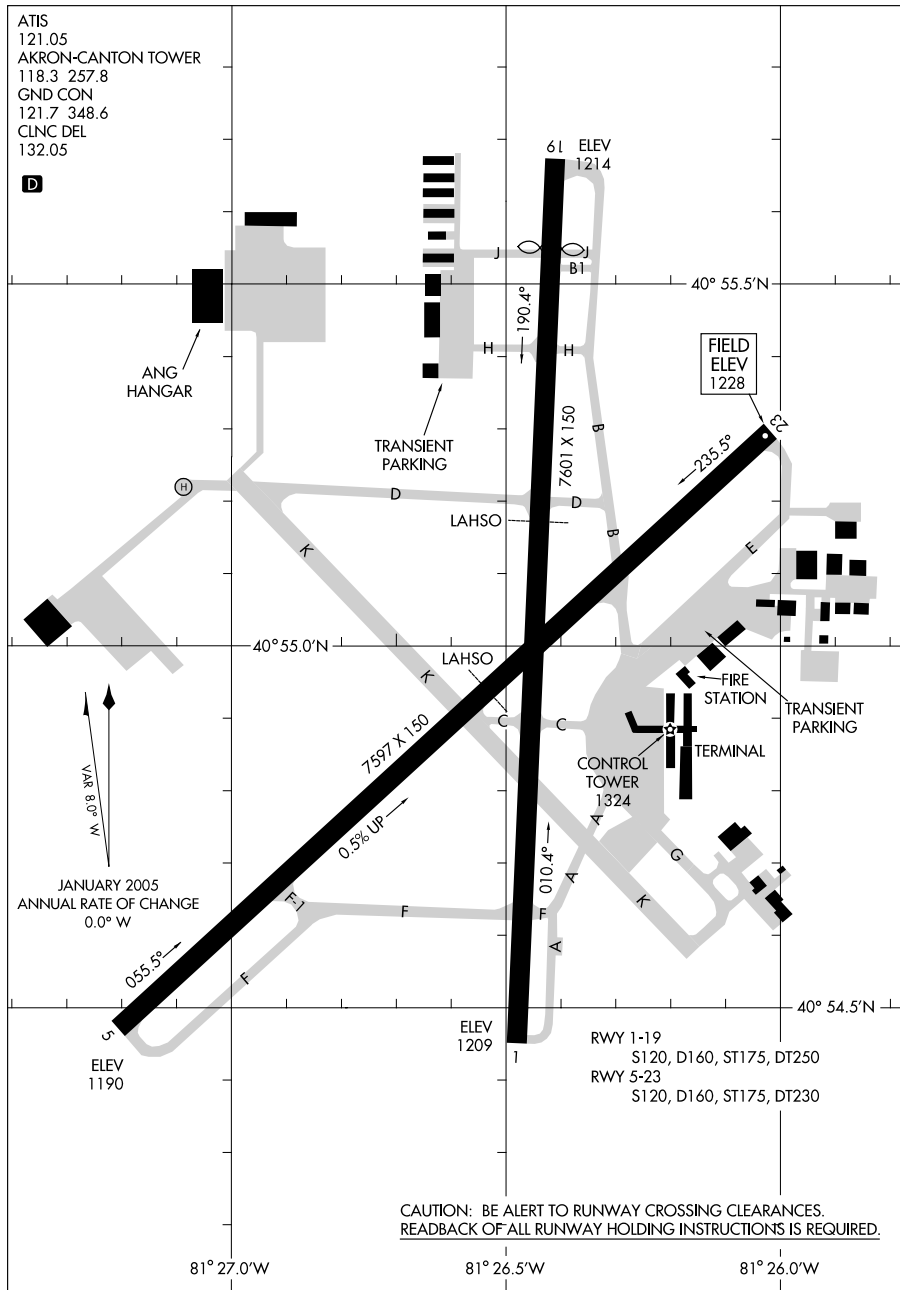
09071

AKRON, OHIO
AKRON FULTON INTL (AKR)

09015

AIRPORT DIAGRAM

AL-638 (FAA)

AKRON-CANTON RGNL (CAK)
AKRON, OHIO

AIRPORT DIAGRAM

09015

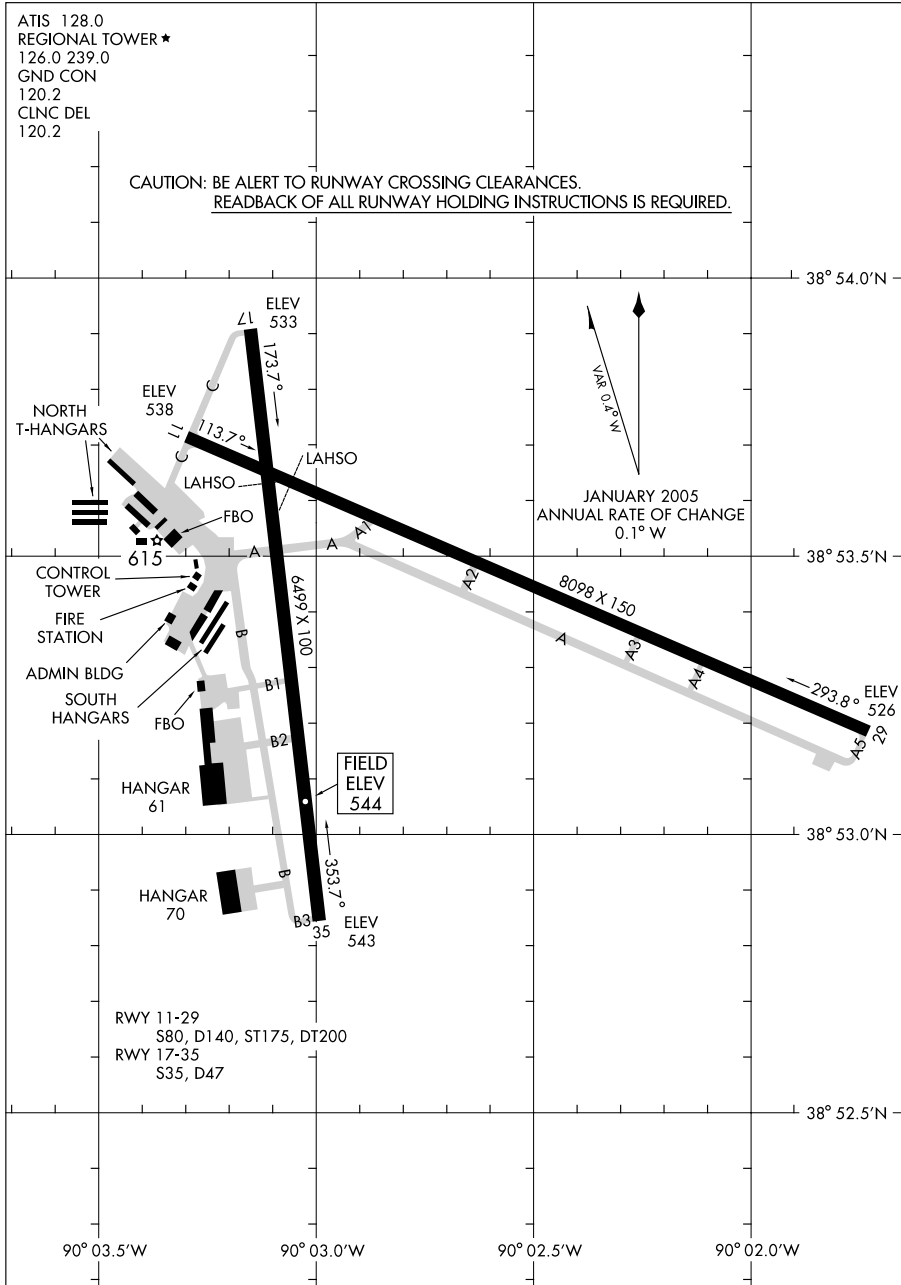
AKRON, OHIO
AKRON-CANTON RGNL (CAK)

08269

AIRPORT DIAGRAM

AL-5178 (FAA)

ALTON/ST. LOUIS RGNL (ALN)
ALTON/ST. LOUIS, ILLINOIS



AIRPORT DIAGRAM

08269

ALTON/ST. LOUIS, ILLINOIS
ALTON/ST. LOUIS RGNL (ALN)

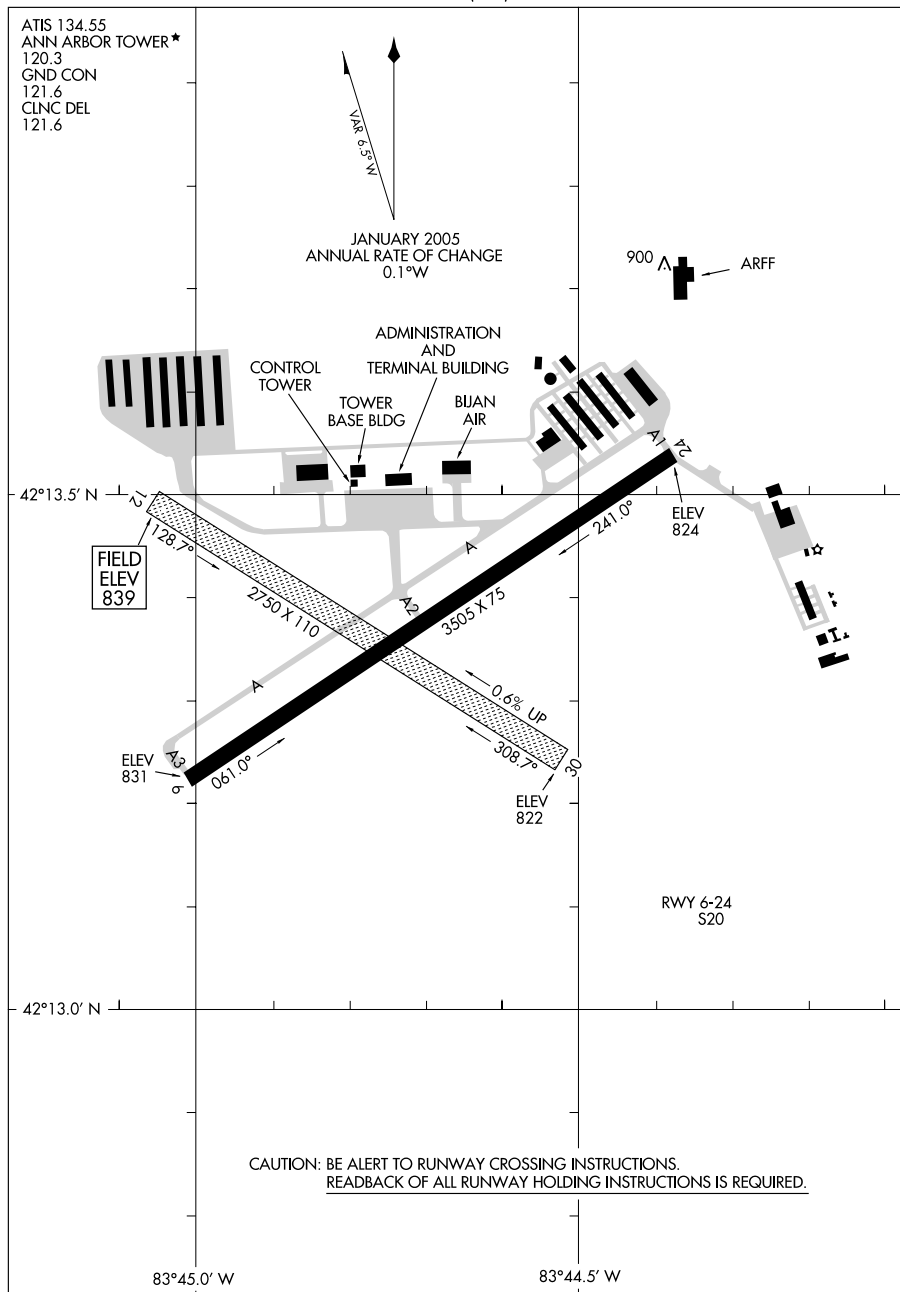
08045

AIRPORT DIAGRAM

AL-5506 (FAA)

ANN ARBOR MUNI (ARB)

ANN ARBOR, MICHIGAN



AIRPORT DIAGRAM

08045

ANN ARBOR, MICHIGAN

ANN ARBOR MUNI (ARB)

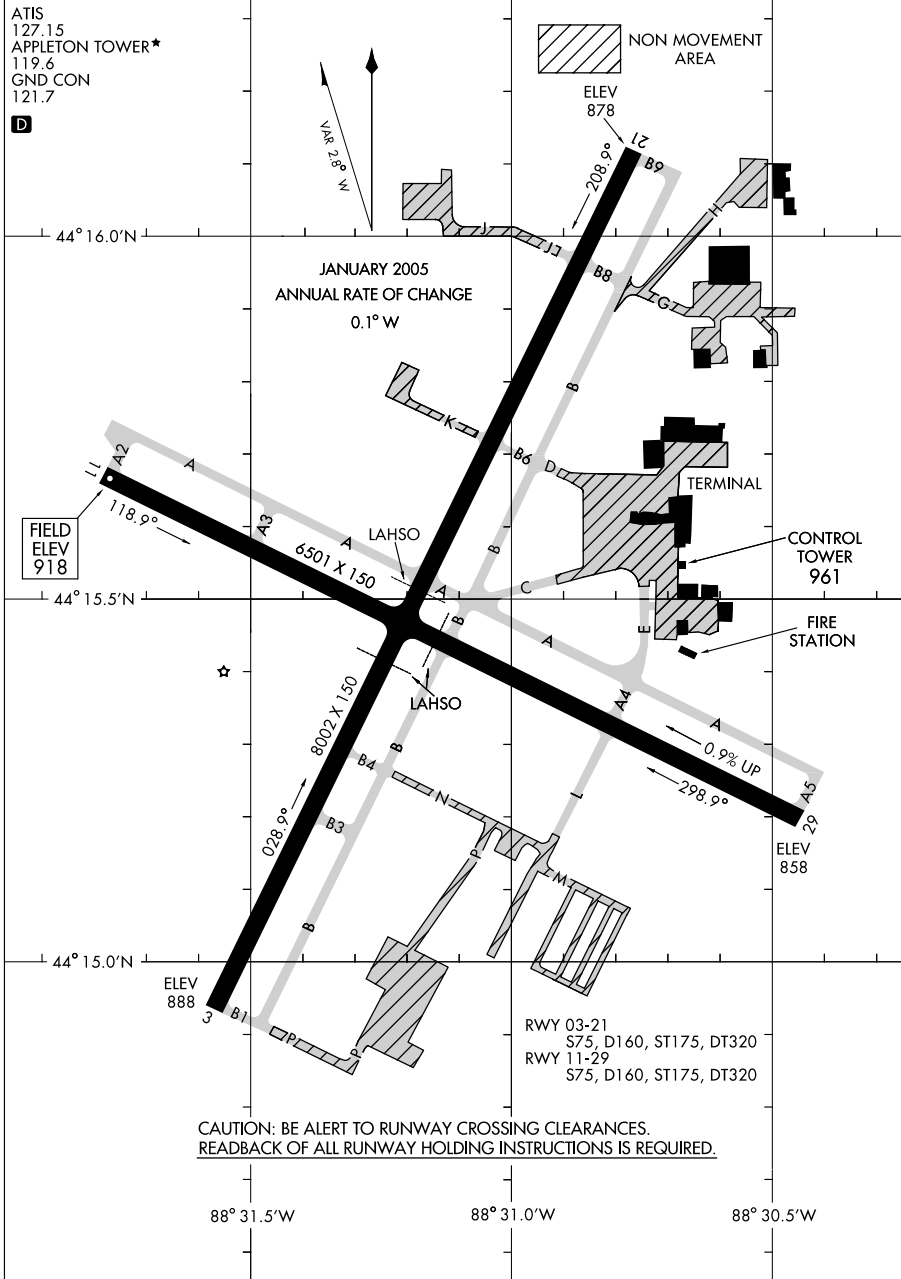
09295

AIRPORT DIAGRAM

APPLETON/OUTAGAMIE COUNTY RGNL (ATW)

AL-5216 (FAA)

APPLETON, WISCONSIN



AIRPORT DIAGRAM

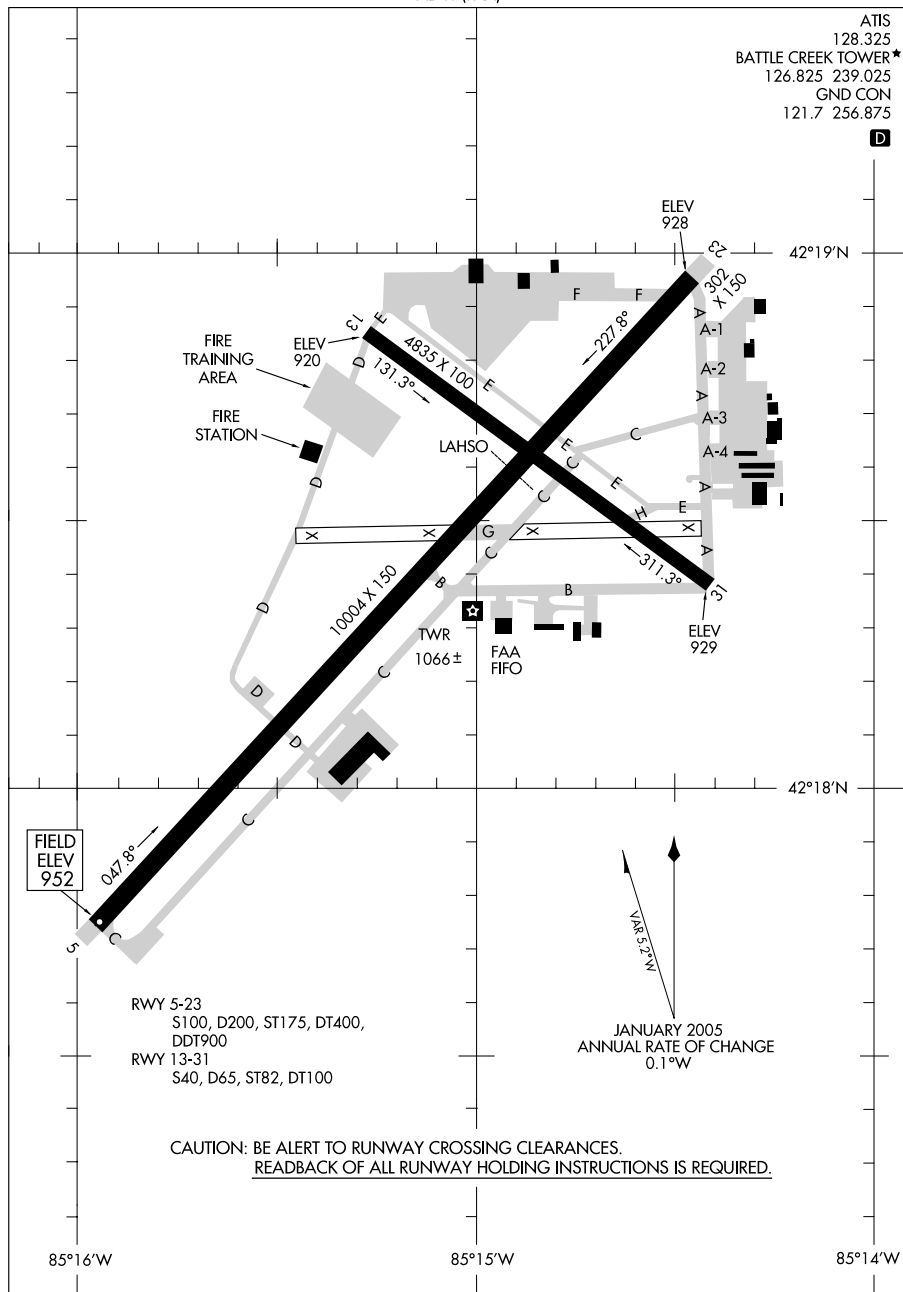
09295

APPLETON, WISCONSIN
APPLETON/OUTAGAMIE COUNTY RGNL (ATW)

09295

AIRPORT DIAGRAM

AL-41 (FAA)

BATTLE CREEK/ W.K. KELLOGG (BTL)
BATTLE CREEK, MICHIGAN

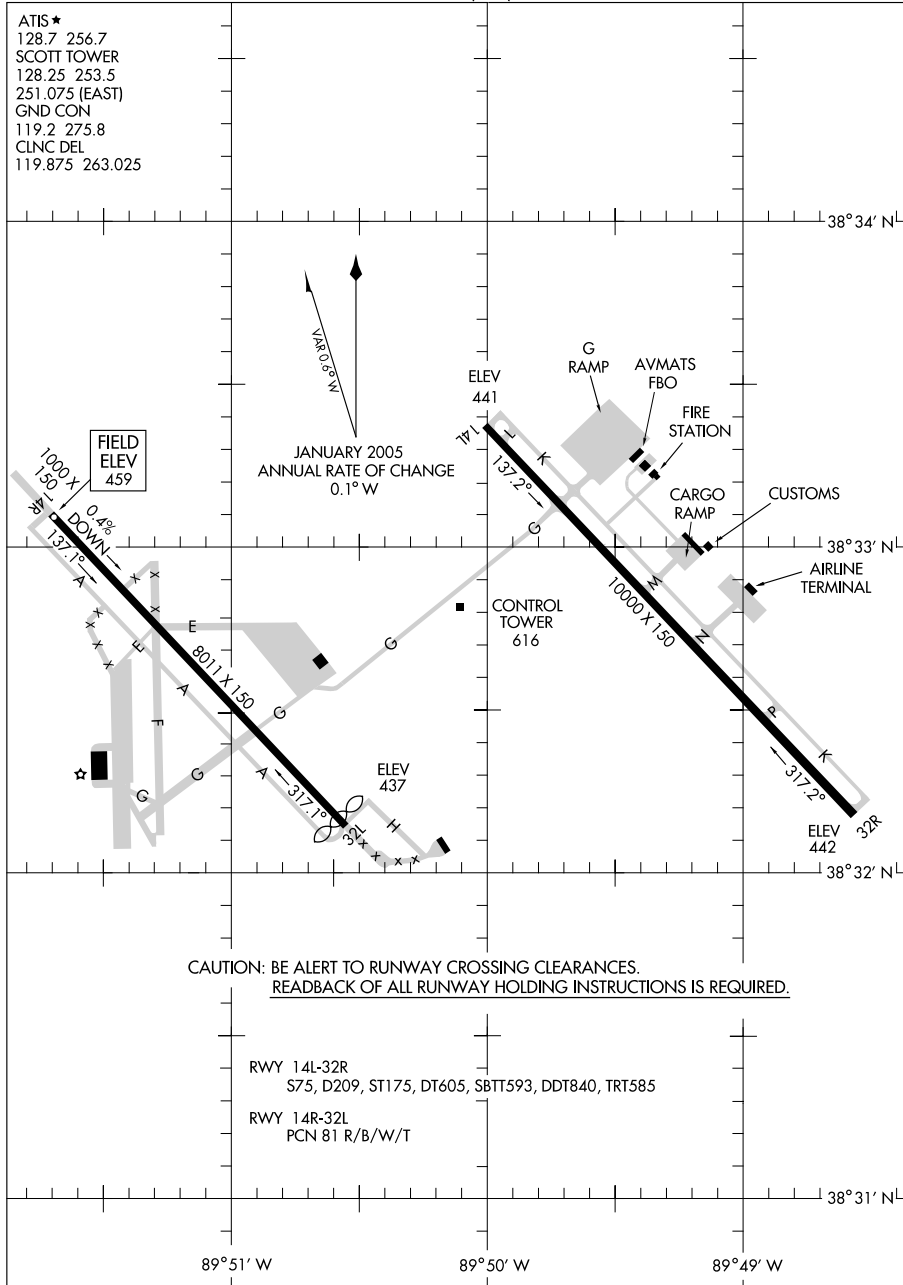
AIRPORT DIAGRAM

09295

BATTLE CREEK, MICHIGAN
BATTLE CREEK/ W.K. KELLOGG (BTL)

09239

AIRPORT DIAGRAM

 BELLEVILLE/SCOTT AFB/MIDAMERICA (BLV)
 AL-46 (FAA) BELLEVILLE, ILLINOIS


AIRPORT DIAGRAM

09239

 BELLEVILLE, ILLINOIS
 BELLEVILLE/SCOTT AFB/MIDAMERICA (BLV)

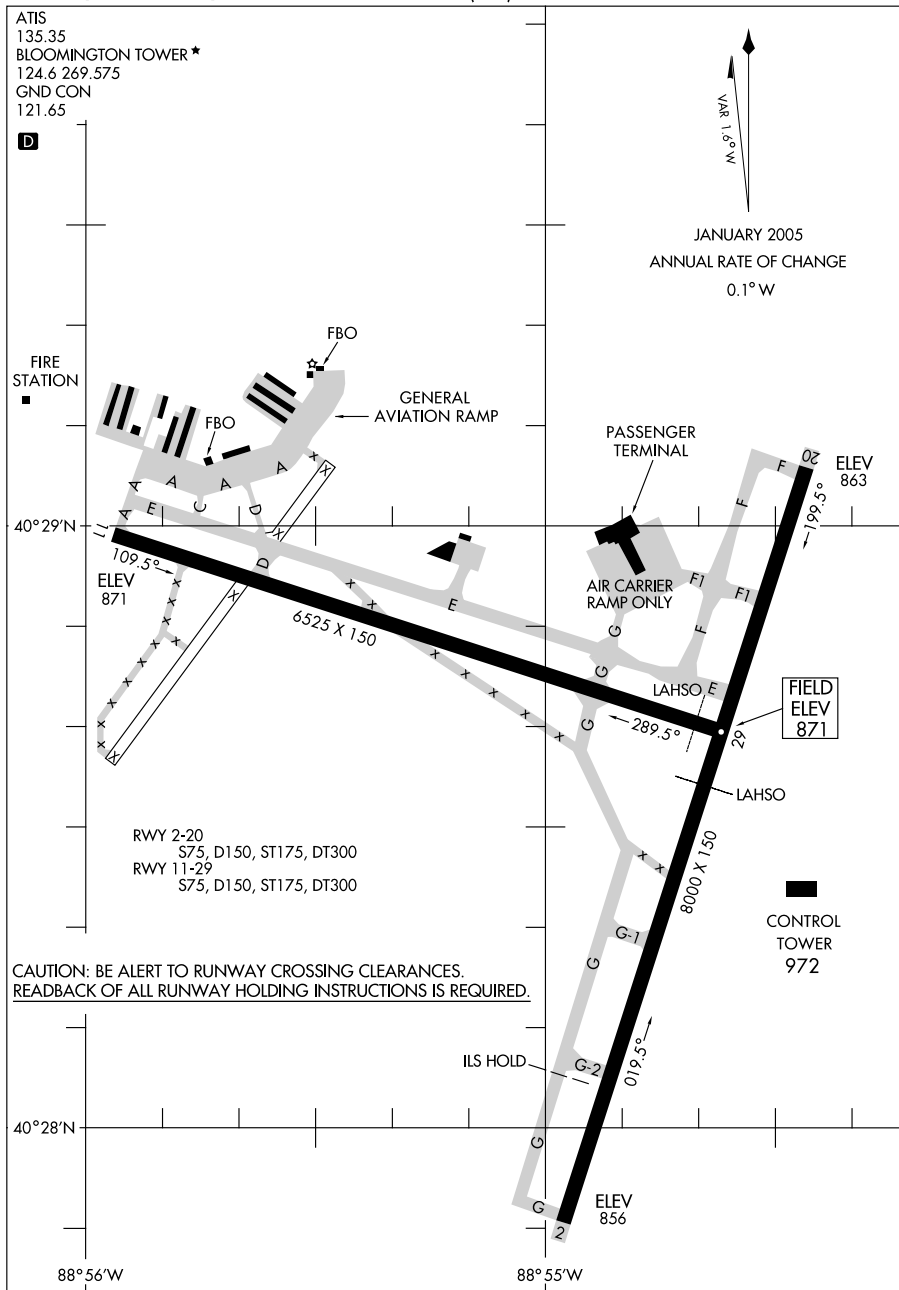
09295

BLOOMINGTON/CENTRAL IL RGNL ARPT AT BLOOMINGTON-NORMAL(BMI)

AIRPORT DIAGRAM

AL-5058 (FAA)

BLOOMINGTON, ILLINOIS



AIRPORT DIAGRAM

BLOOMINGTON, ILLINOIS

09295

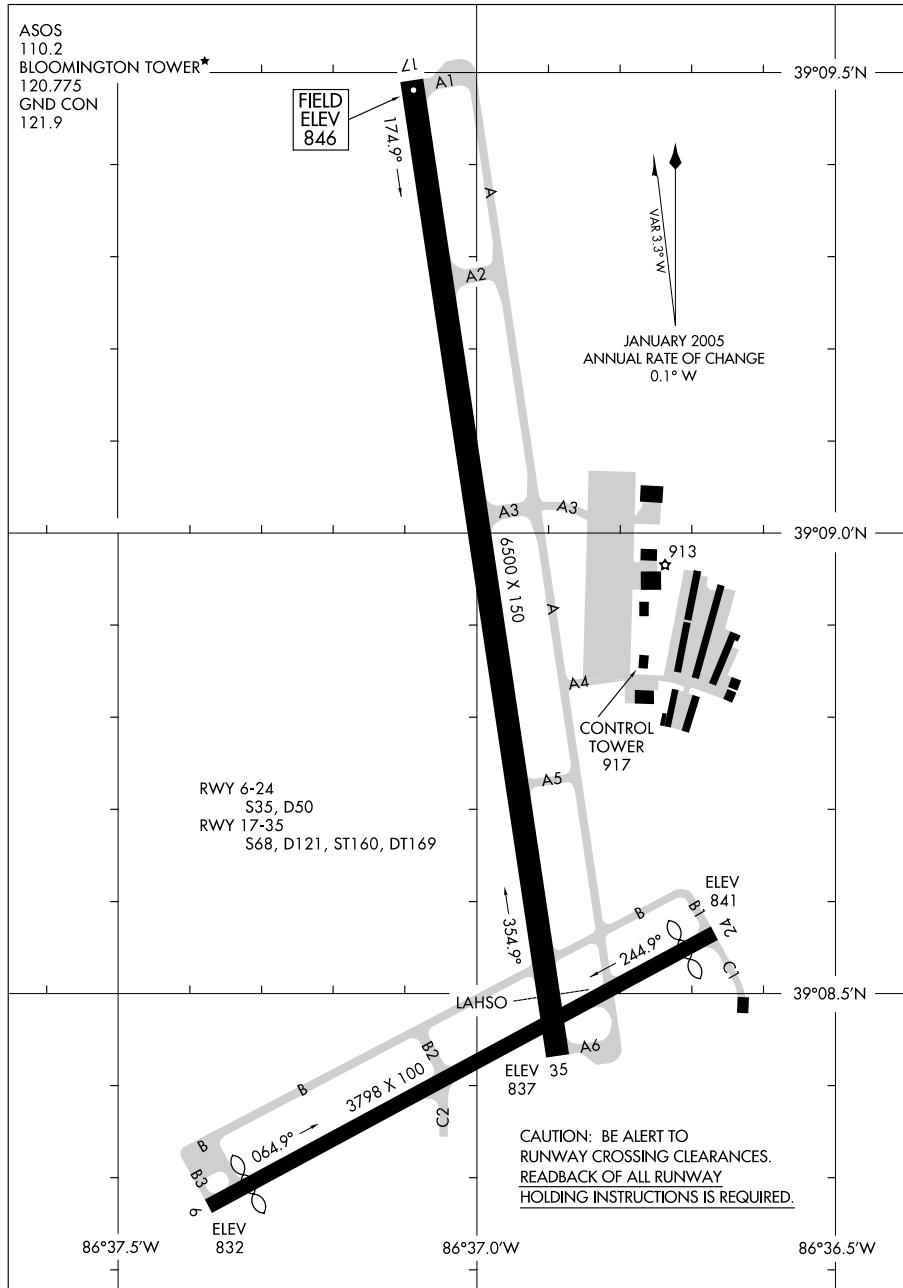
BLOOMINGTON/CENTRAL IL RGNL ARPT AT BLOOMINGTON-NORMAL(BMI)

09295

AIRPORT DIAGRAM

BLOOMINGTON / MONROE COUNTY (BMG)
BLOOMINGTON, INDIANA

AL-5168 (FAA)



AIRPORT DIAGRAM

09295

BLOOMINGTON, INDIANA
BLOOMINGTON / MONROE COUNTY (BMG)

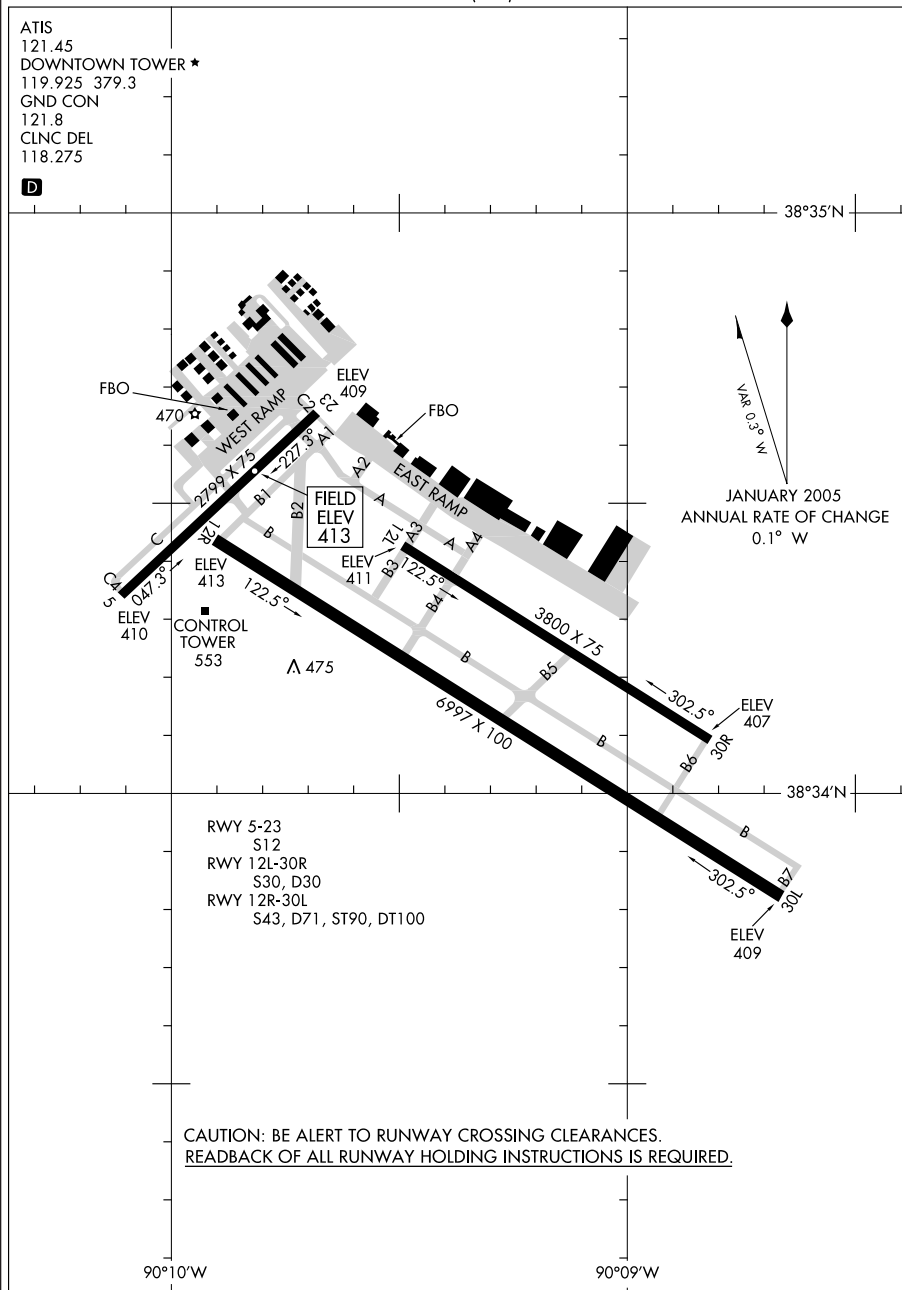
09295

AIRPORT DIAGRAM

AL-5316 (FAA)

CAHOKIA/ ST. LOUIS DOWNTOWN (CPS)

CAHOKIA/ ST. LOUIS, ILLINOIS



AIRPORT DIAGRAM

09295

CAHOKIA/ ST. LOUIS, ILLINOIS
CAHOKIA/ ST. LOUIS DOWNTOWN (CPS)

CARBONDALE-MURPHYSBORO/ SOUTHERN ILLINOIS (MDH)
AL-5091 (FAA) CARBONDALE-MURPHYSBORO, ILLINOIS



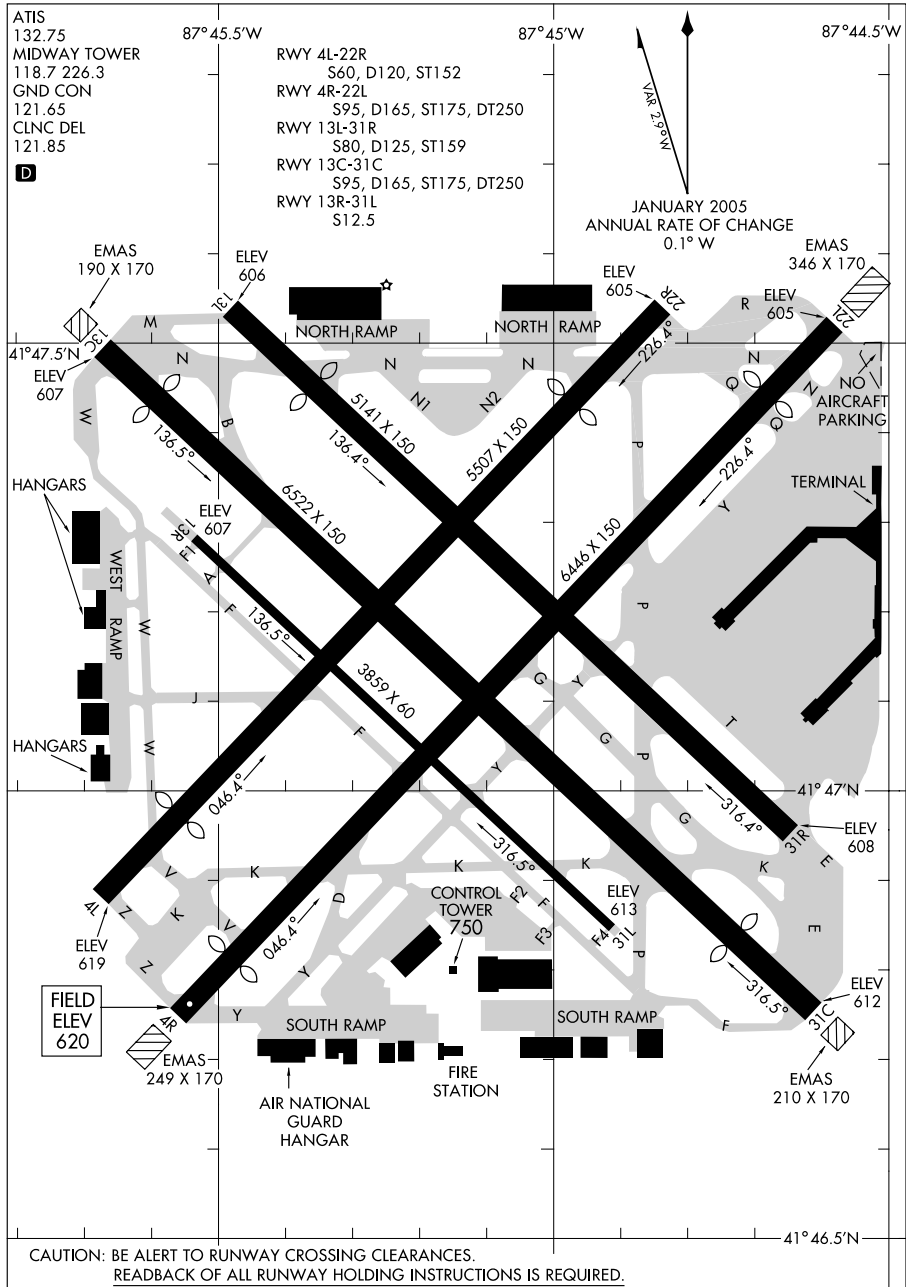
CARBONDALE-MURPHYSBORO, ILLINOIS
CARBONDALE-MURPHYSBORO/ SOUTHERN ILLINOIS (MDH)

09071

AIRPORT DIAGRAM

AL-81 (FAA)

CHICAGO MIDWAY INTL (MDW)
CHICAGO, ILLINOIS



AIRPORT DIAGRAM

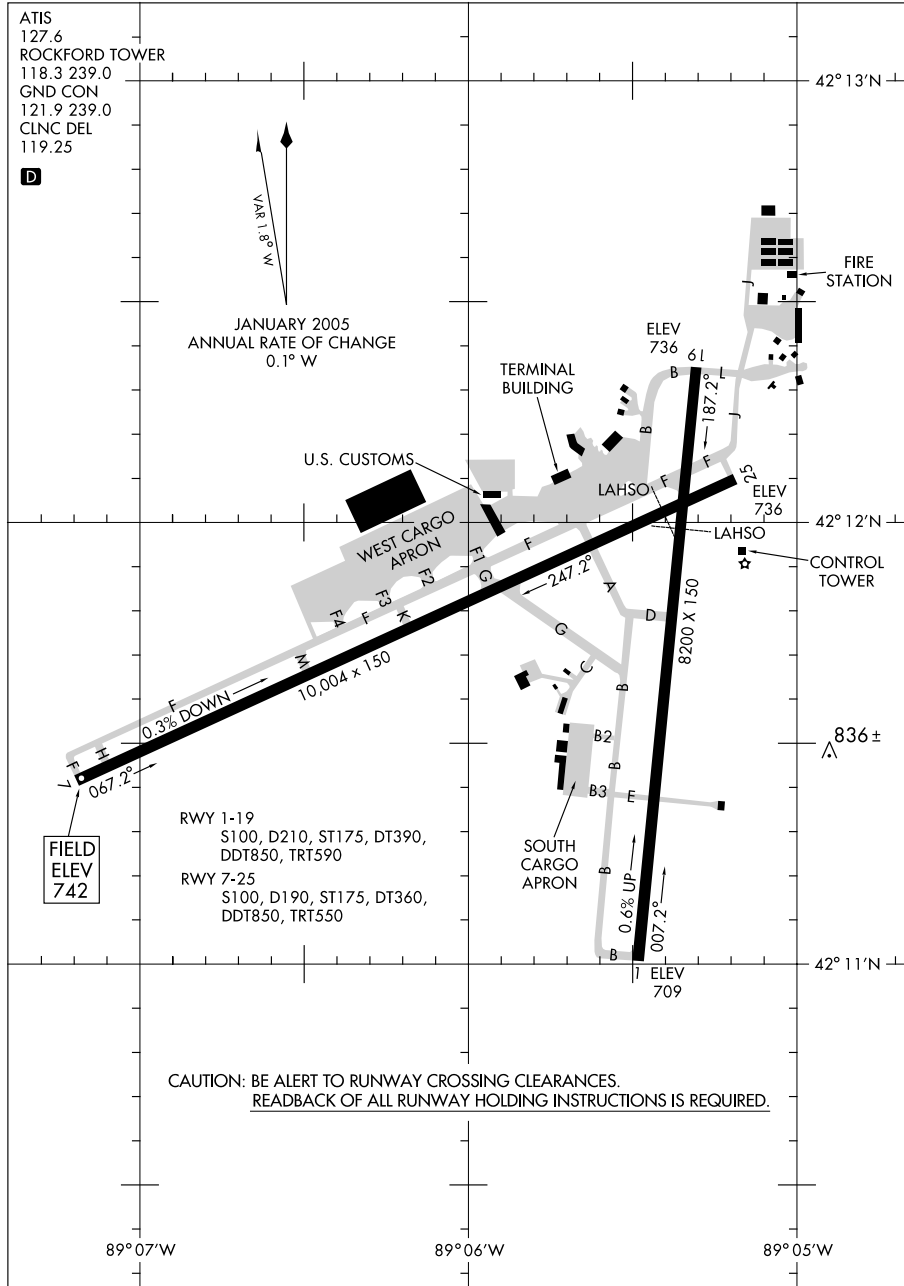
09071

CHICAGO, ILLINOIS
CHICAGO MIDWAY INTL (MDW)

09015

AIRPORT DIAGRAM

AL-954 (FAA)

CHICAGO/ROCKFORD INTL (RFD)
CHICAGO/ROCKFORD, ILLINOIS

AIRPORT DIAGRAM

09015

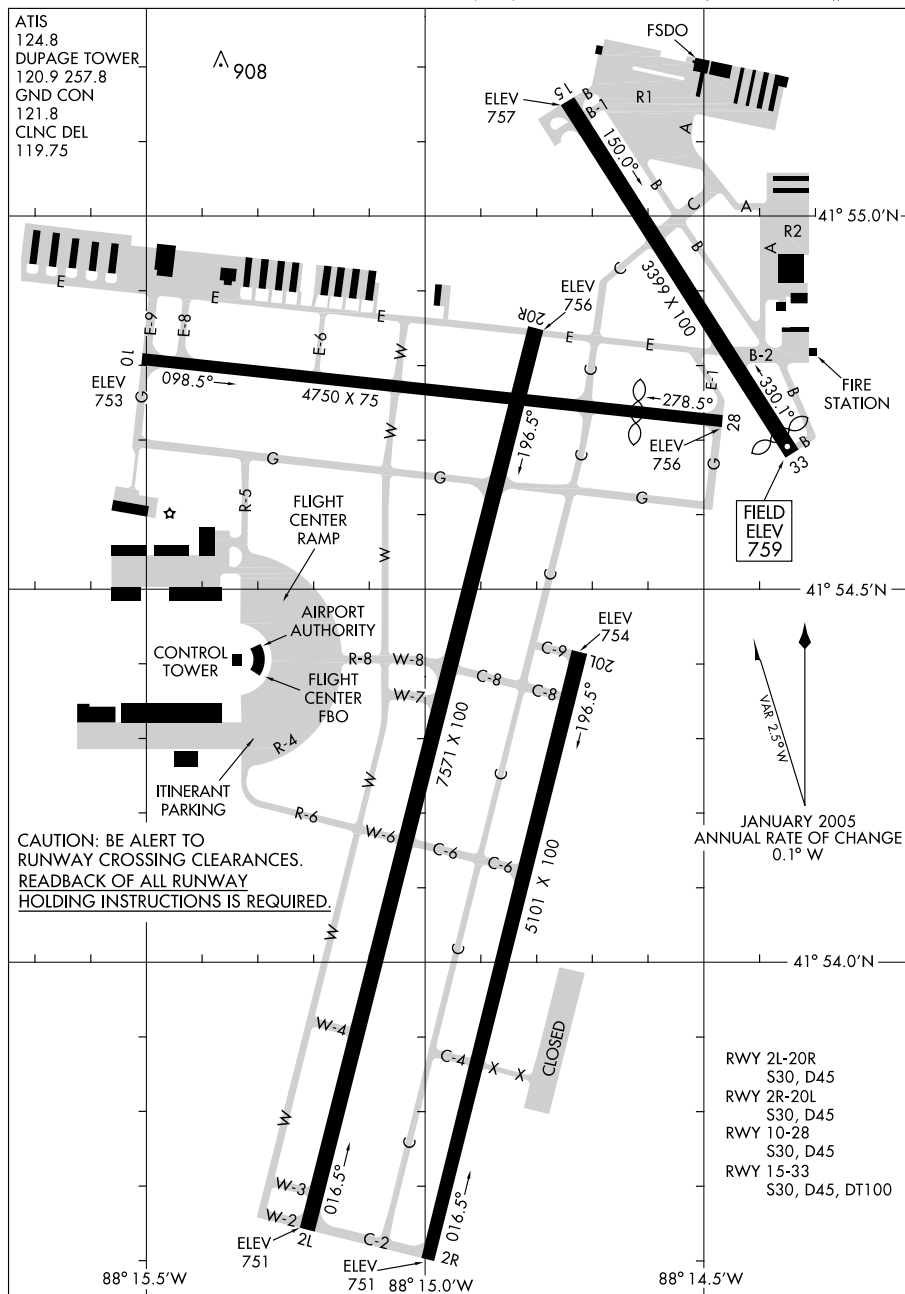
CHICAGO/ROCKFORD, ILLINOIS
CHICAGO/ROCKFORD INTL (RFD)

09015

AIRPORT DIAGRAM

AL-5104 (FAA)

CHICAGO/DU PAGE (DPA)
CHICAGO (WEST CHICAGO), ILLINOIS



AIRPORT DIAGRAM

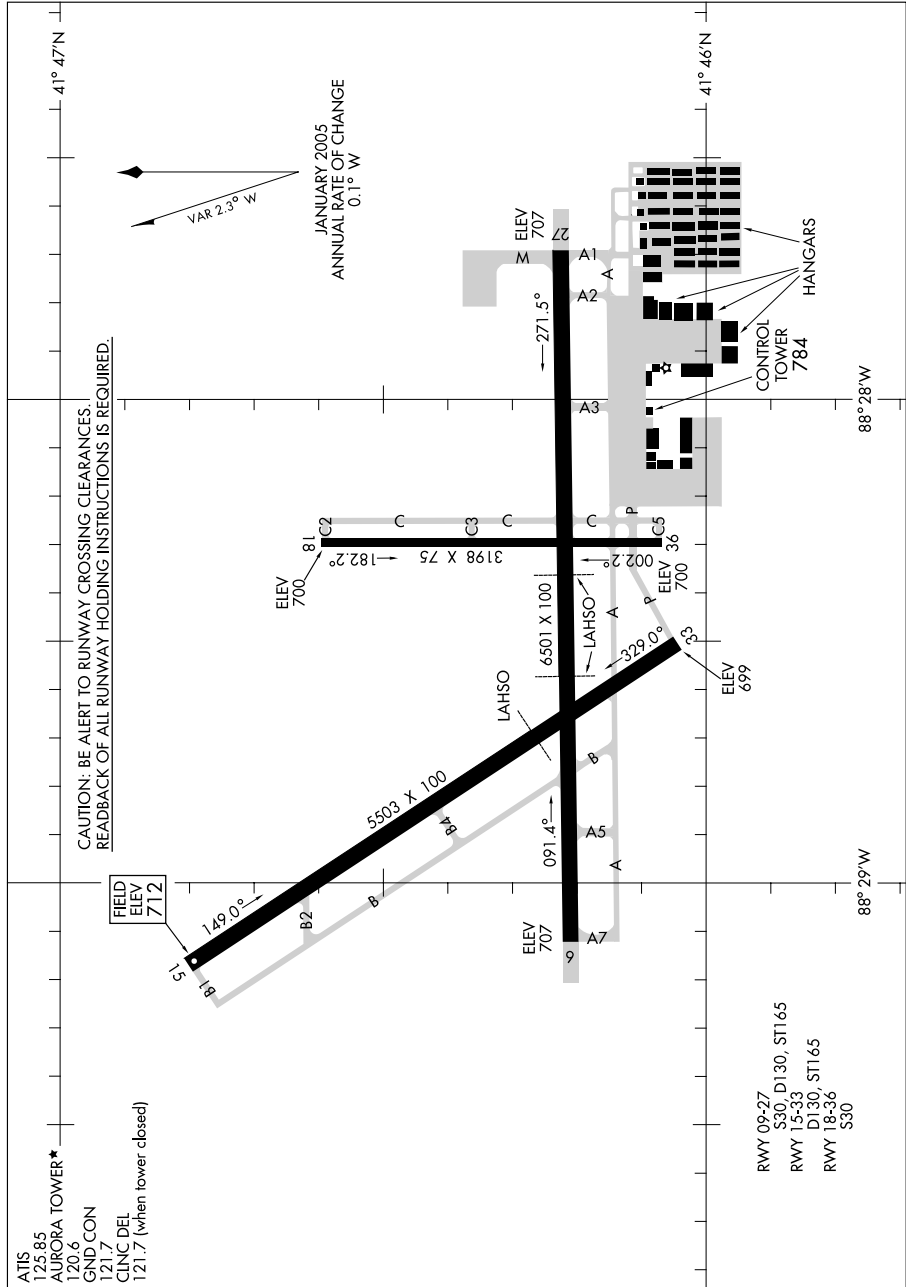
09015

CHICAGO (WEST CHICAGO), ILLINOIS
CHICAGO/DU PAGE (DPA)

09295

AIRPORT DIAGRAM

AL-5103 (FAA)

CHICAGO/AURORA MUNI (ARR)
CHICAGO/AURORA, ILLINOIS

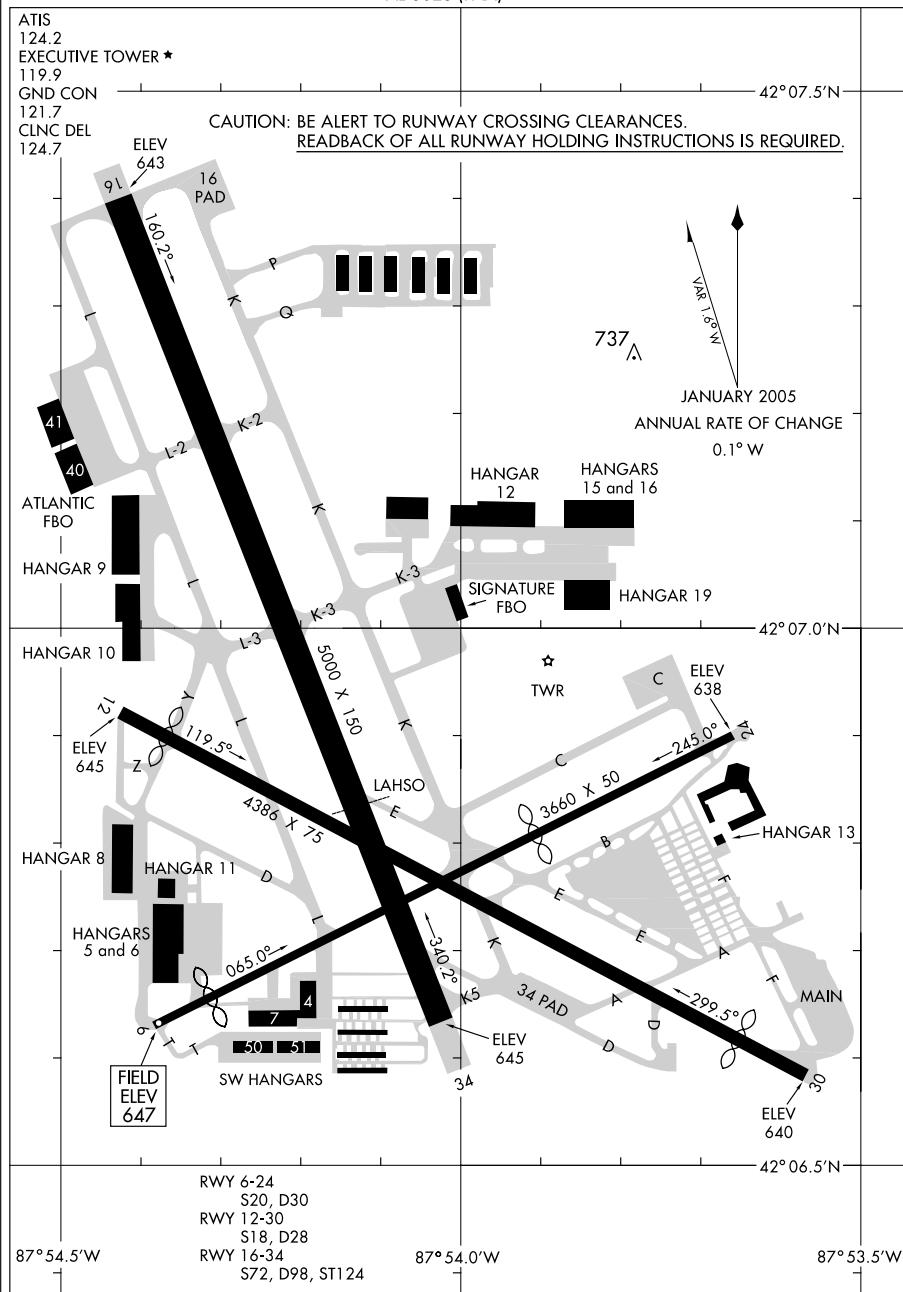
AIRPORT DIAGRAM

09295

CHICAGO/AURORA, ILLINOIS
CHICAGO/AURORA MUNI (ARR)

09295

AIRPORT DIAGRAM

AL-5028 (FAA) CHICAGO/PROSPECT HEIGHTS/WHEELING, ILLINOIS
CHICAGO EXECUTIVE (PWK)

AIRPORT DIAGRAM

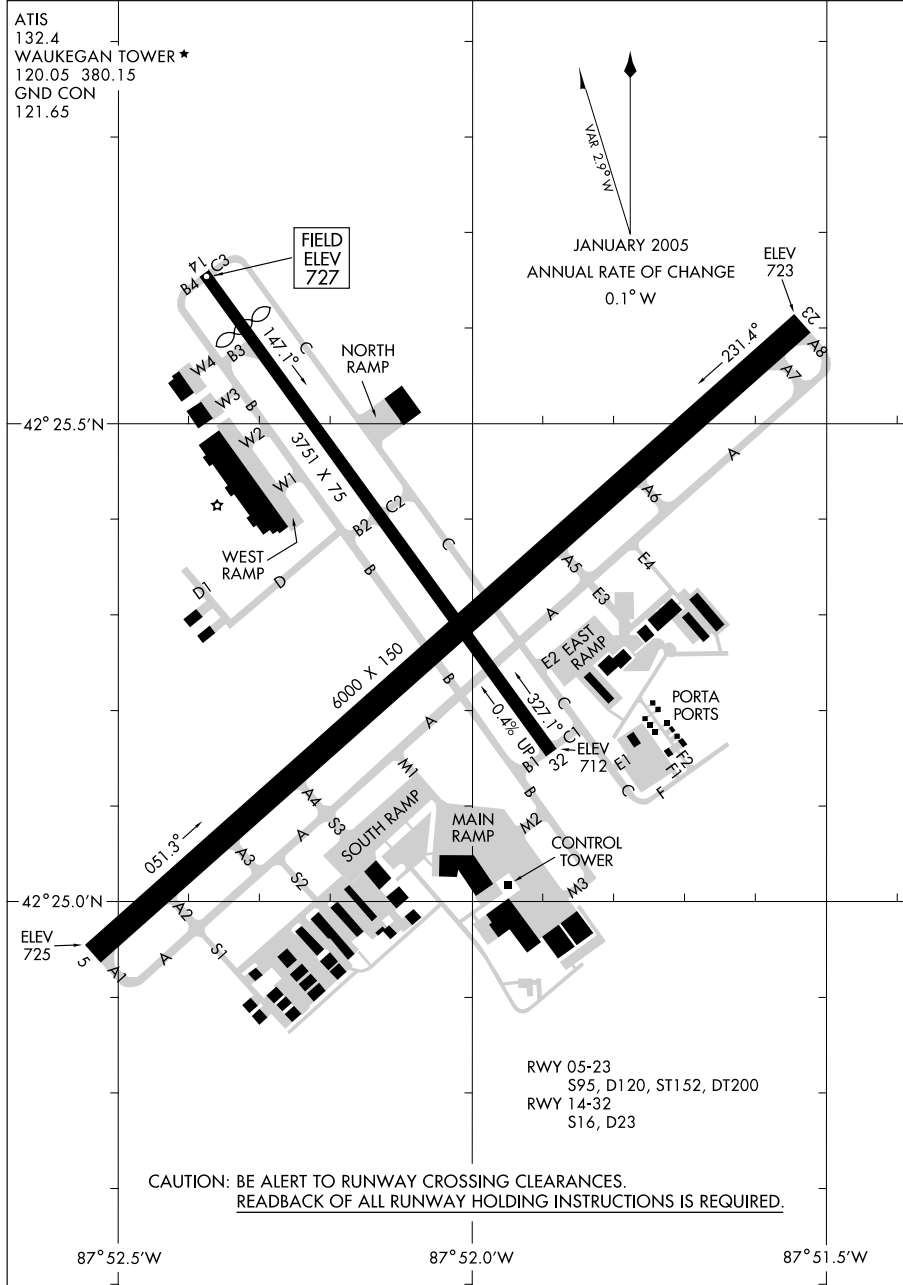
09295

CHICAGO/PROSPECT HEIGHTS/WHEELING, ILLINOIS
CHICAGO EXECUTIVE (PWK)

09015

AIRPORT DIAGRAM

AL-5324 (FAA)

CHICAGO/ WAUKEGAN RGNL (UGN)
CHICAGO/WAUKEGAN, ILLINOIS

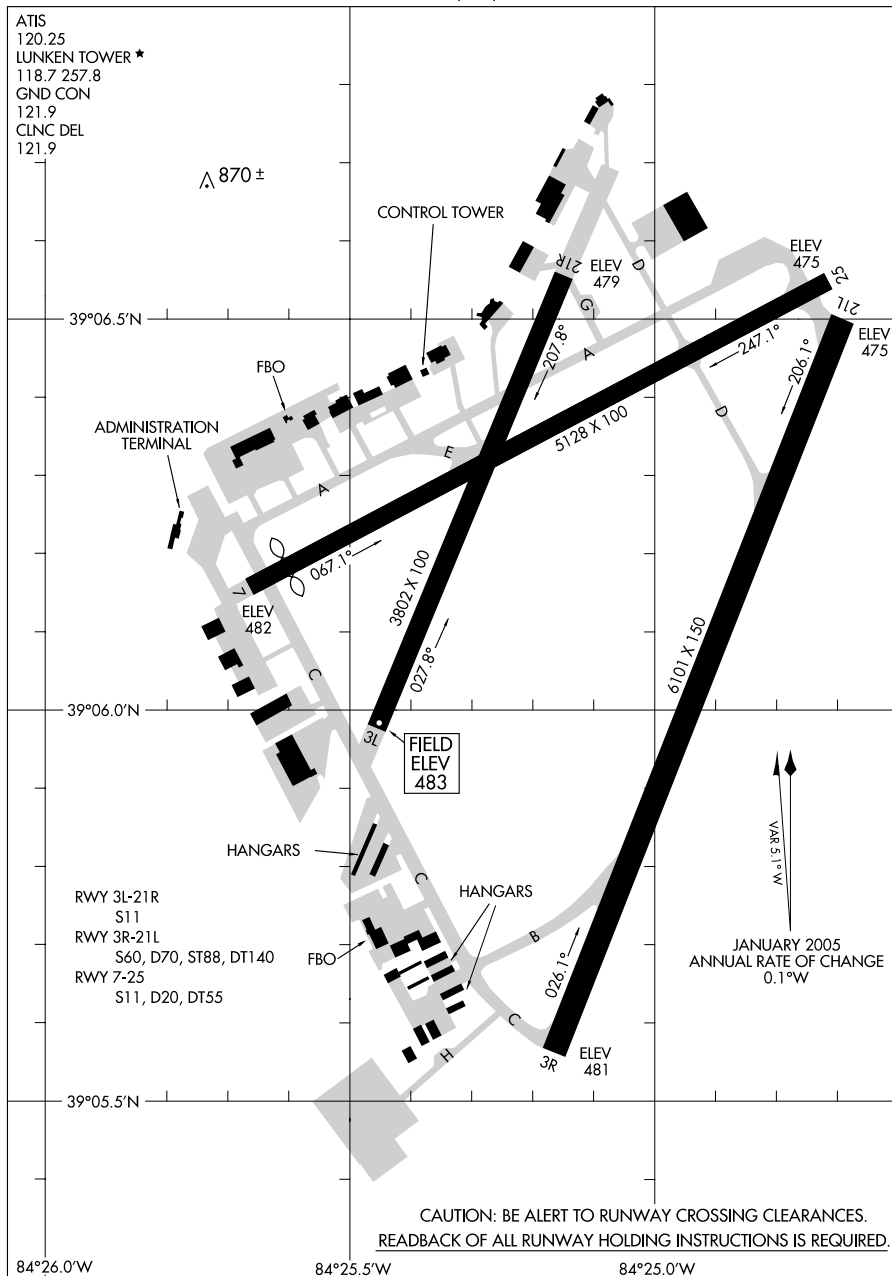
AIRPORT DIAGRAM

09015

CHICAGO/WAUKEGAN, ILLINOIS
CHICAGO/ WAUKEGAN RGNL (UGN)

09071

AIRPORT DIAGRAM

CINCINNATI MUNI AIRPORT-LUNKEN FIELD (LWK)
AL-83 (FAA)
CINCINNATI, OHIO

AIRPORT DIAGRAM

09071

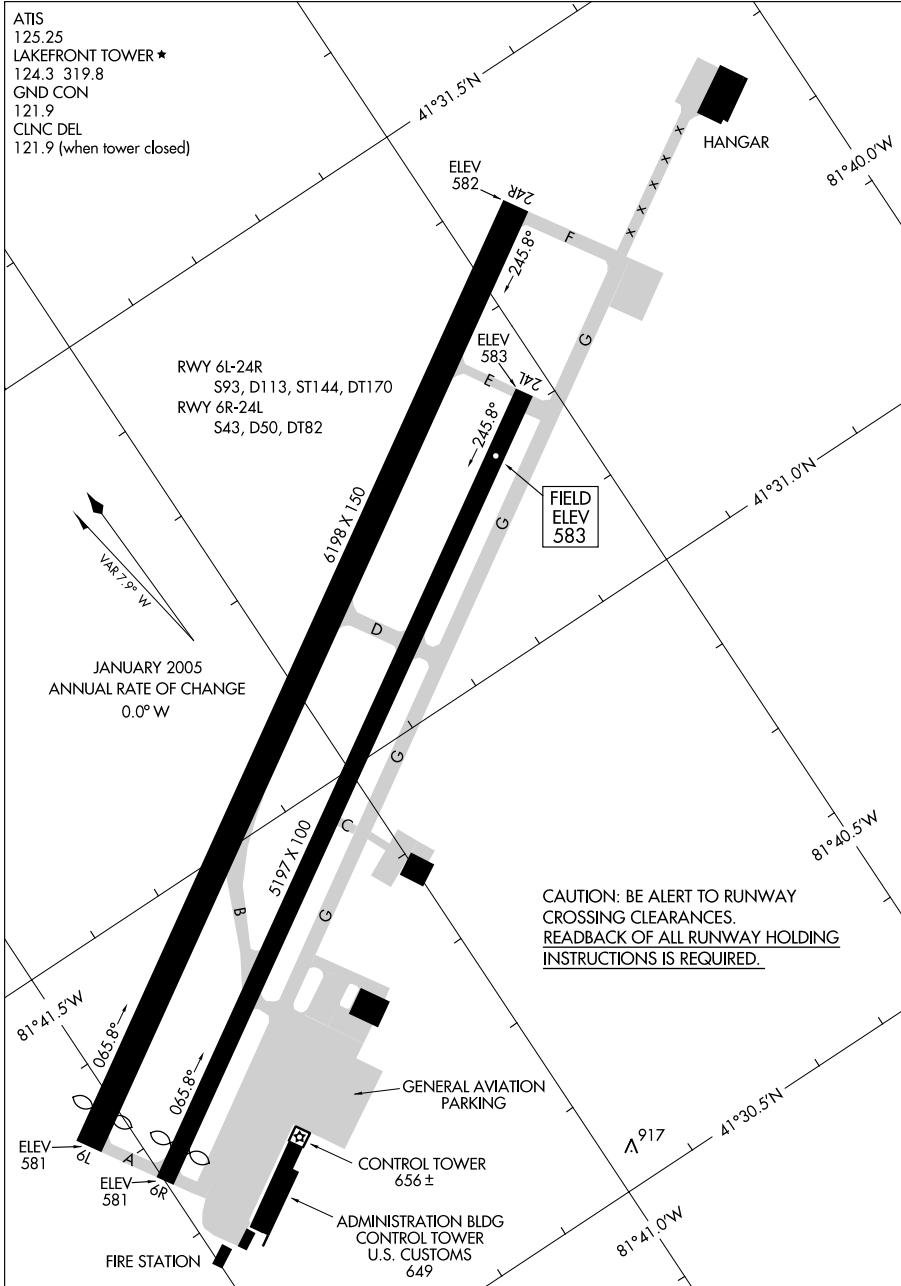
CINCINNATI, OHIO
CINCINNATI MUNI AIRPORT-LUNKEN FIELD (LWK)

09015

AIRPORT DIAGRAM

CLEVELAND/ BURKE LAKEFRONT (BKL)
CLEVELAND, OHIO

AL-5370 (FAA)



AIRPORT DIAGRAM

09015

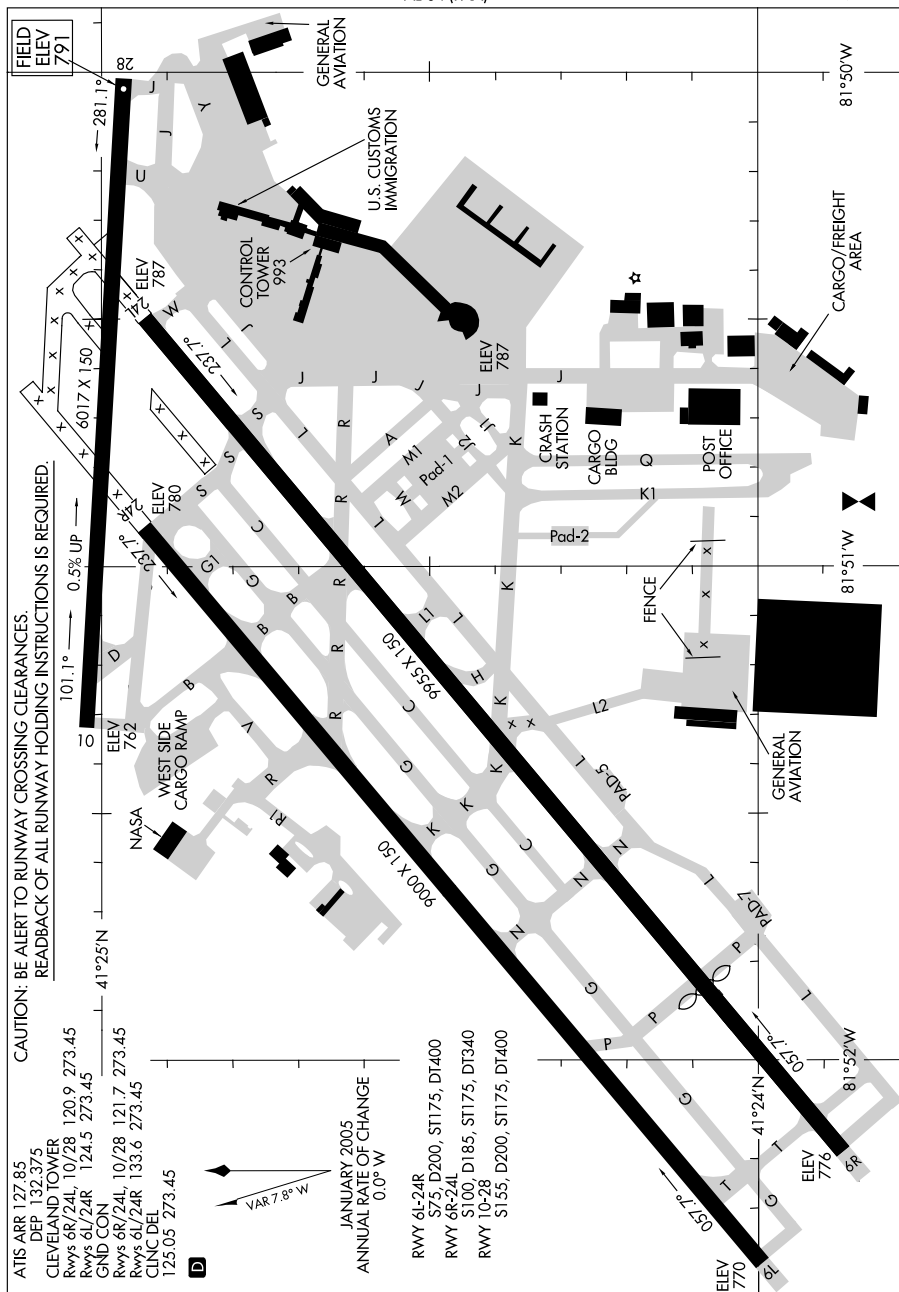
CLEVELAND, OHIO
CLEVELAND/ BURKE LAKEFRONT (BKL)

09183

AIRPORT DIAGRAM

AL-84 (FAA)

CLEVELAND-HOPKINS INTL (CLE)
CLEVELAND, OHIO



AIRPORT DIAGRAM

09183

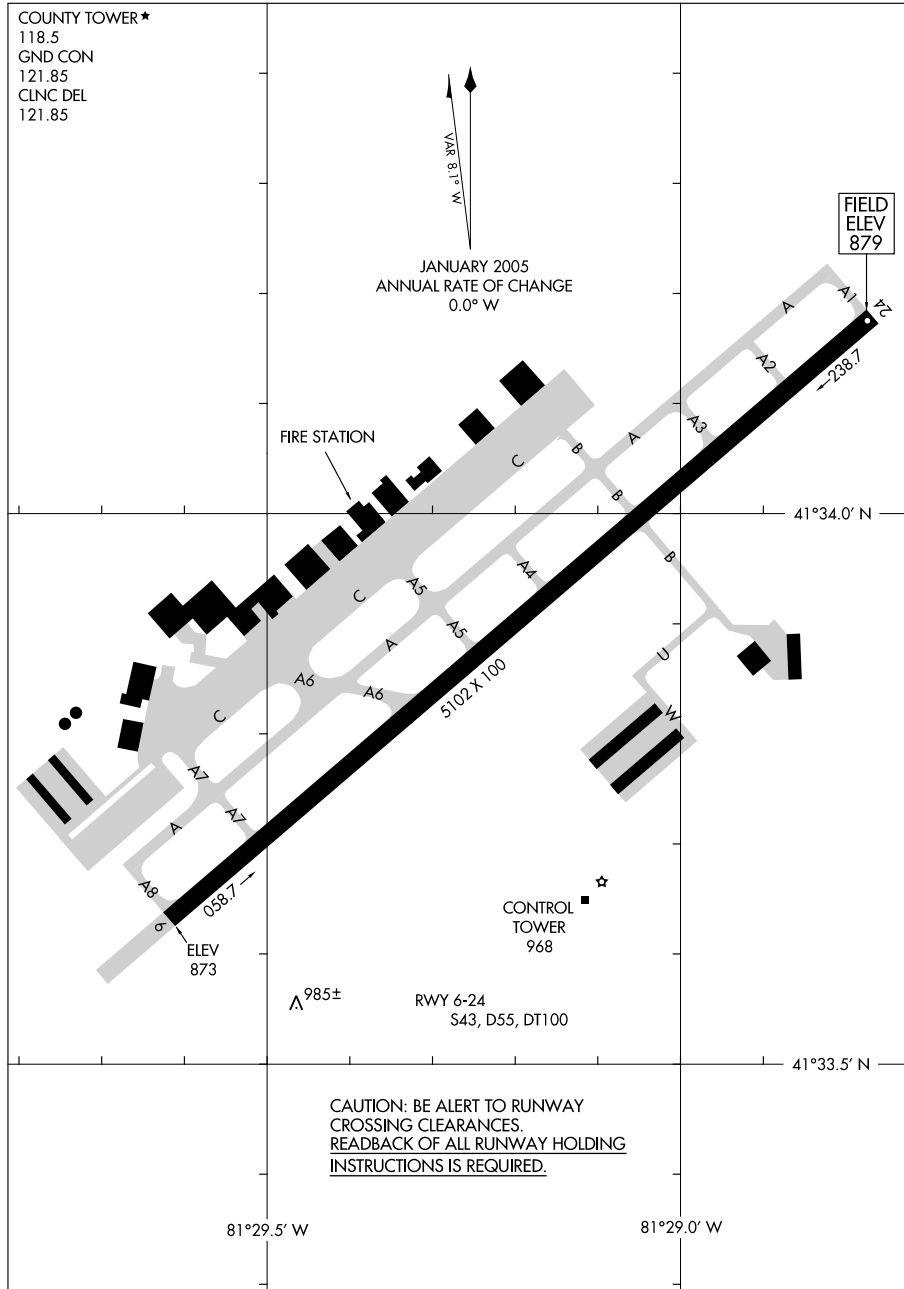
CLEVELAND, OHIO
CLEVELAND-HOPKINS INTL (CLE)

08269

AIRPORT DIAGRAM

AL-5027 (FAA)

CLEVELAND / CUYAHOGA COUNTY (CGF)
CLEVELAND, OHIO



AIRPORT DIAGRAM

08269

CLEVELAND, OHIO
CLEVELAND / CUYAHOGA COUNTY (CGF)

09295

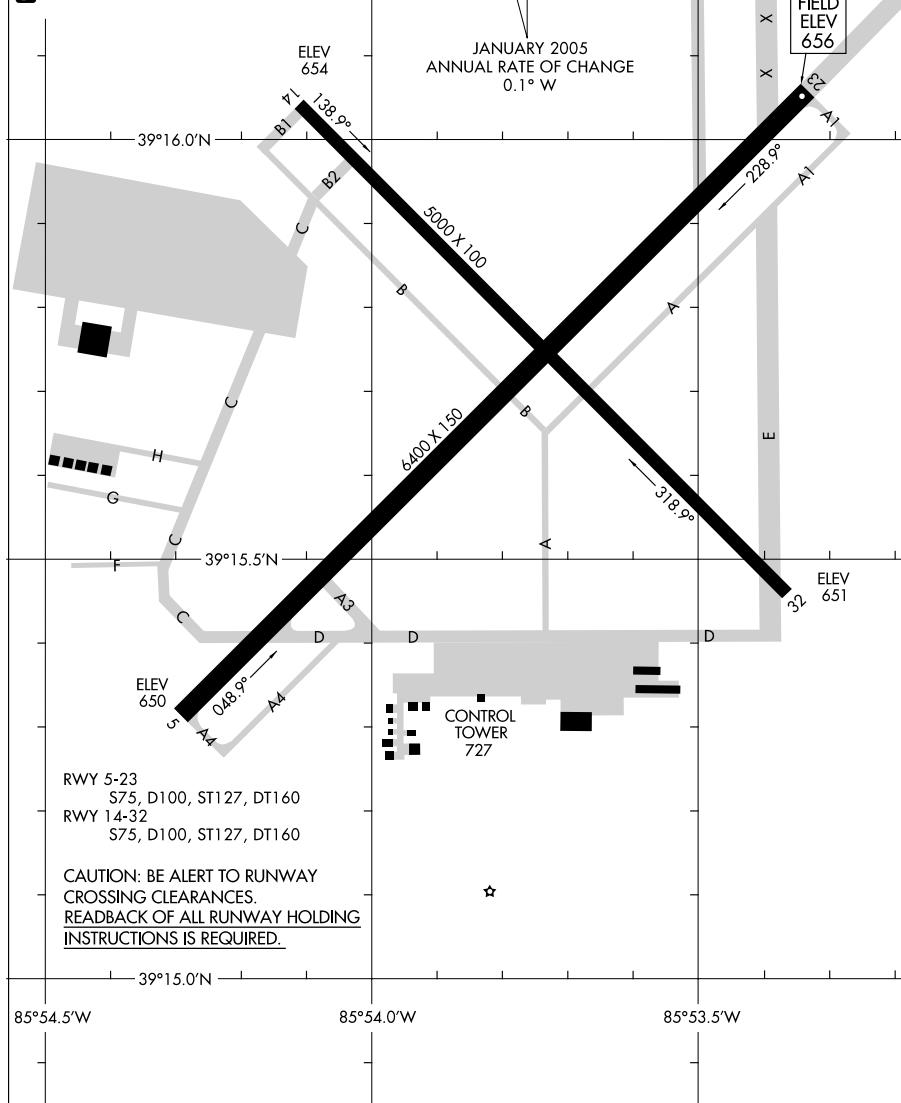
AIRPORT DIAGRAM

AL-594 (FAA)

COLUMBUS MUNI (BAK)
COLUMBUS, INDIANA

AWOS-3
119.75
COLUMBUS TOWER ★
118.6
GND CON
121.6
CLNC DEL
134.85 (When twr closed)

D



AIRPORT DIAGRAM

09295

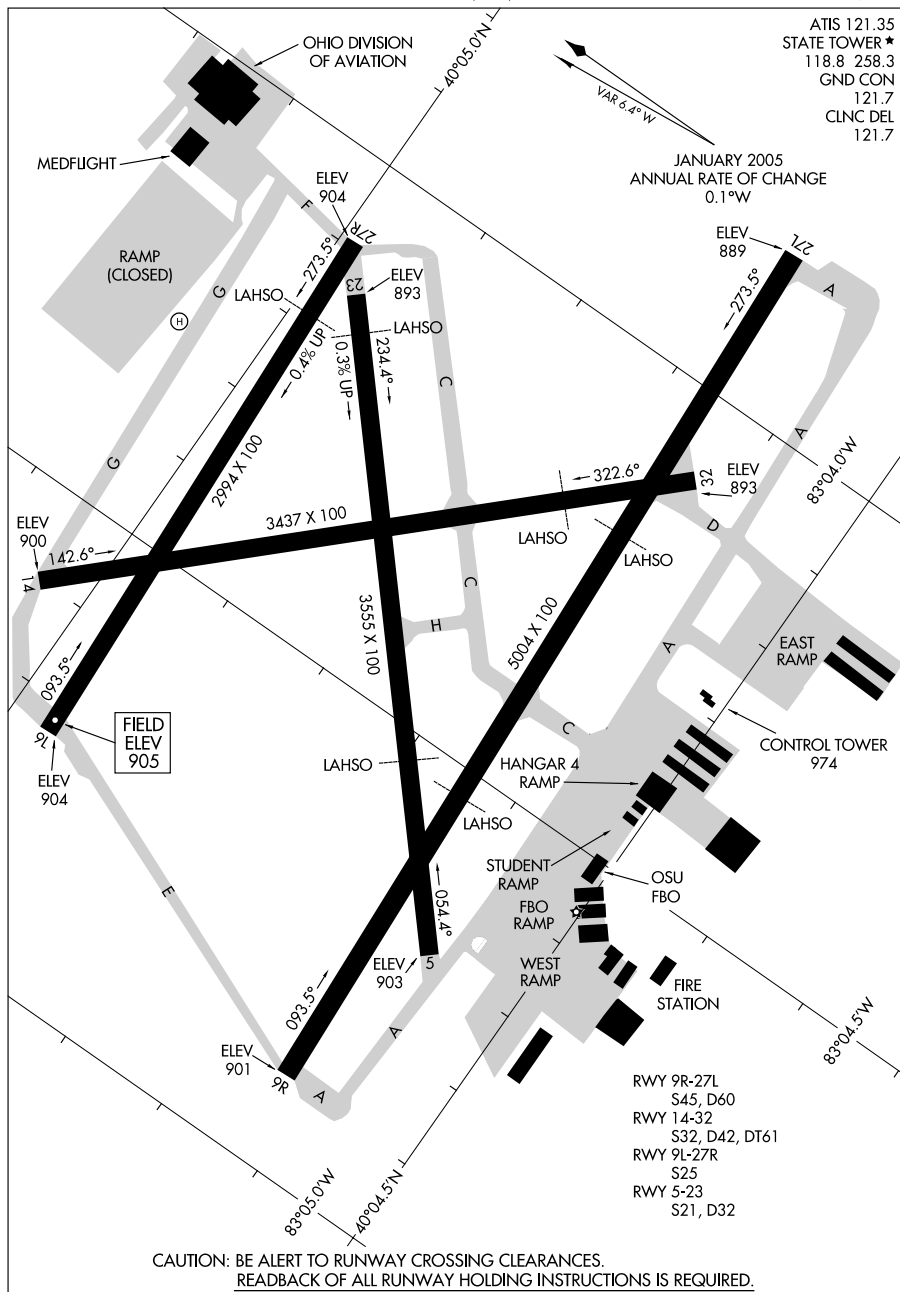
COLUMBUS, INDIANA
COLUMBUS MUNI (BAK)

08269

AIRPORT DIAGRAM

AL-5387 (FAA)

COLUMBUS/OHIO STATE UNIVERSITY (OSU)
COLUMBUS, OHIO



AIRPORT DIAGRAM

08269

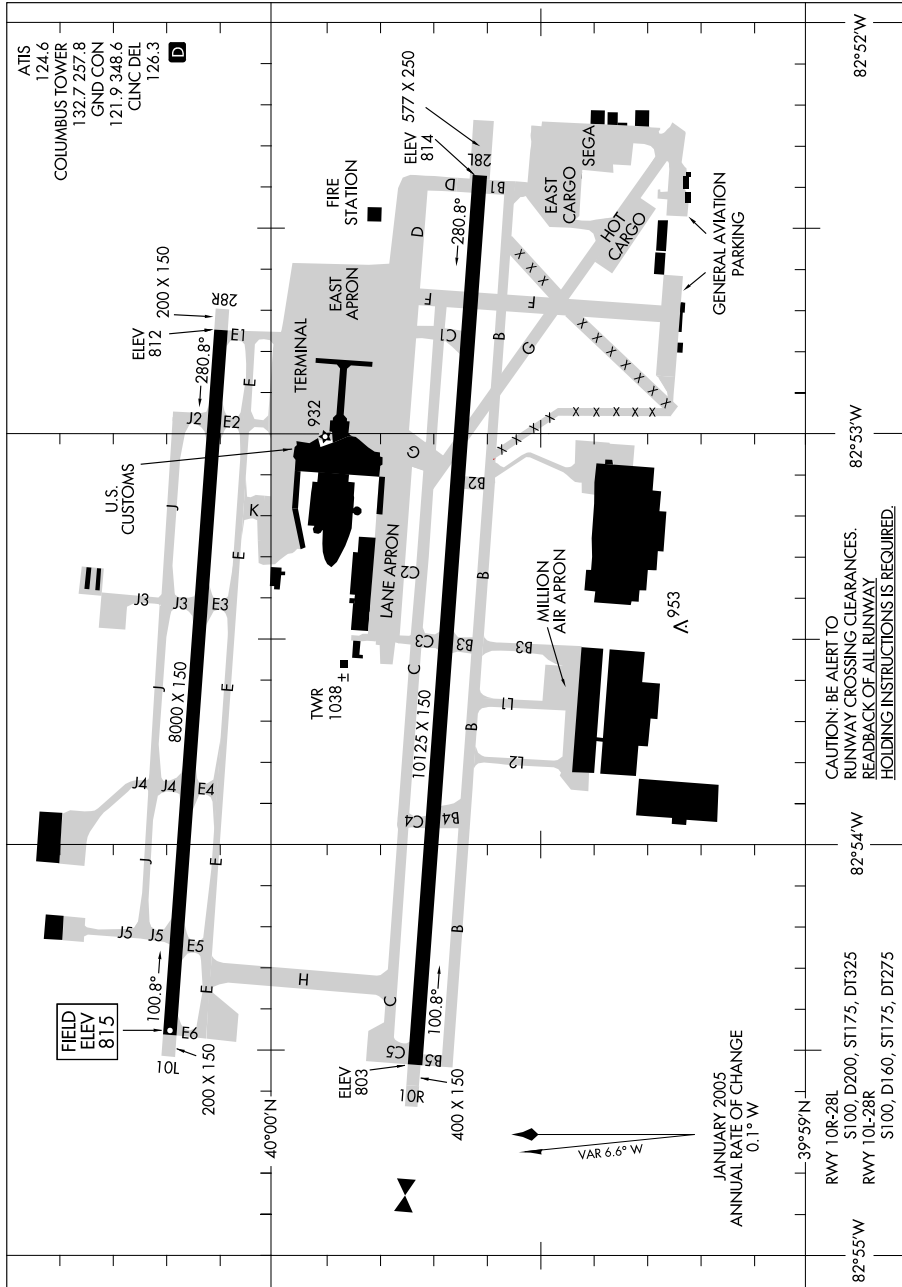
COLUMBUS, OHIO
COLUMBUS/OHIO STATE UNIVERSITY (OSU)

09295

AIRPORT DIAGRAM

COLUMBUS/ PORT COLUMBUS INTL (CMH)
COLUMBUS, OHIO

AL-94 (FAA)



AIRPORT DIAGRAM

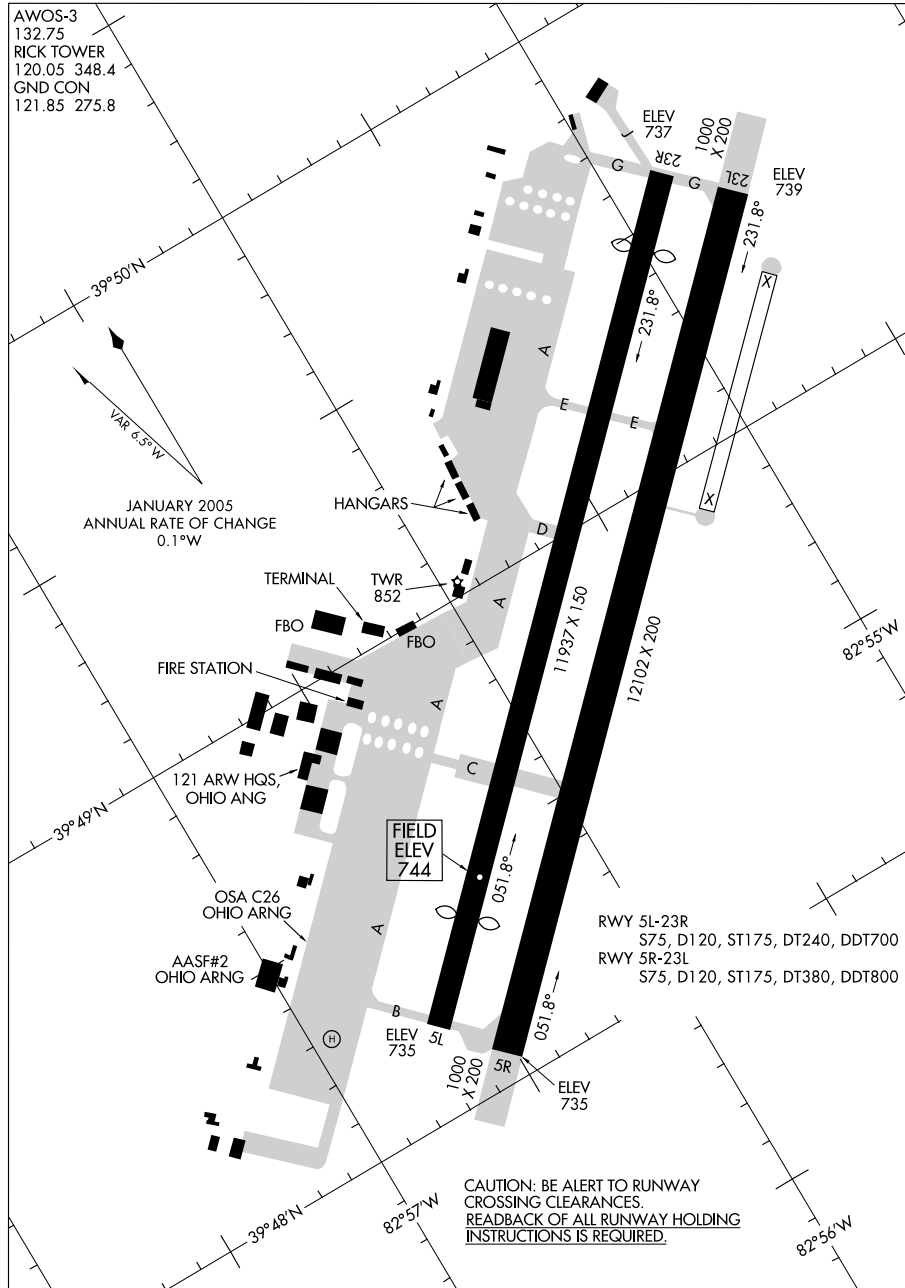
09295

COLUMBUS, OHIO
COLUMBUS/ PORT COLUMBUS INTL (CMH)

09295

AIRPORT DIAGRAM

AL-6846 (FAA)

COLUMBUS/RICKENBACKER INTL (LCK)
COLUMBUS, OHIO

AIRPORT DIAGRAM

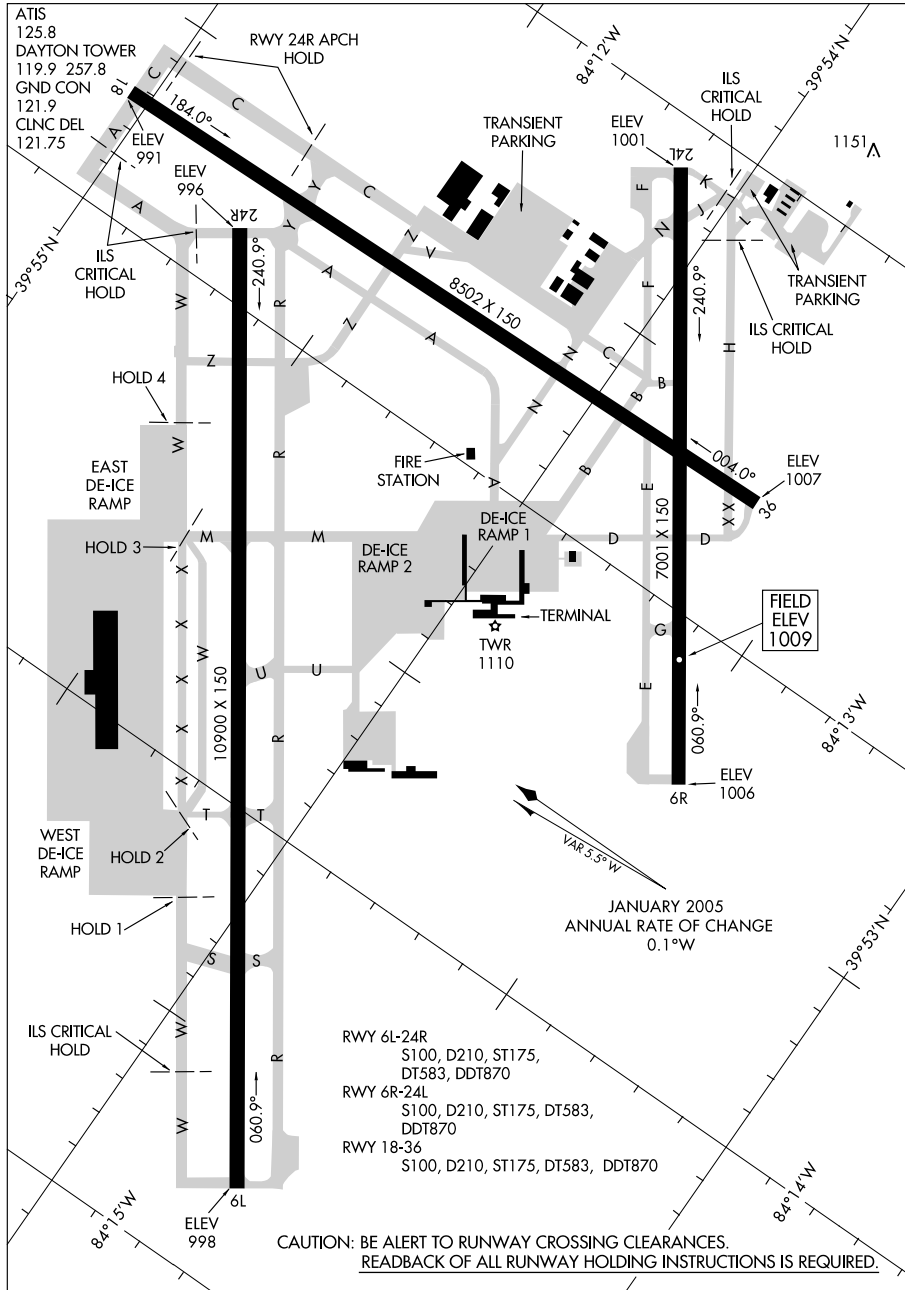
09295

COLUMBUS, OHIO
COLUMBUS/RICKENBACKER INTL (LCK)

09183

AIRPORT DIAGRAM

DAYTON / JAMES M. COX-DAYTON INTL (DAY)
AL-107 (FAA) DAYTON, OHIO



AIRPORT DIAGRAM

DAYTON, OHIO
DAYTON / JAMES M. COX-DAYTON INTL (DAY)

09183

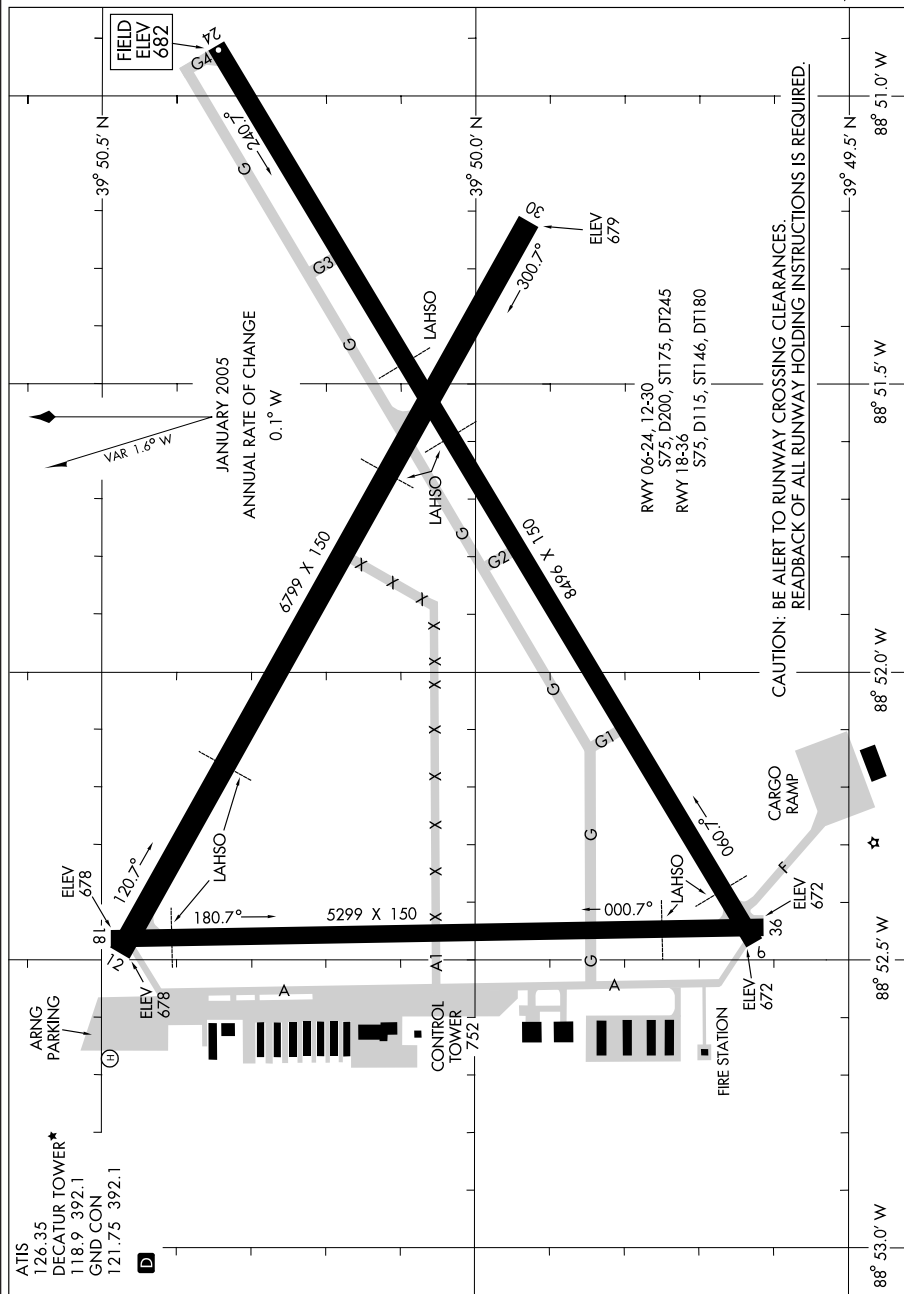
09295

AIRPORT DIAGRAM

AL-710 (FAA)

DECATUR (DEC)

DECATUR, ILLINOIS



AIRPORT DIAGRAM

09295

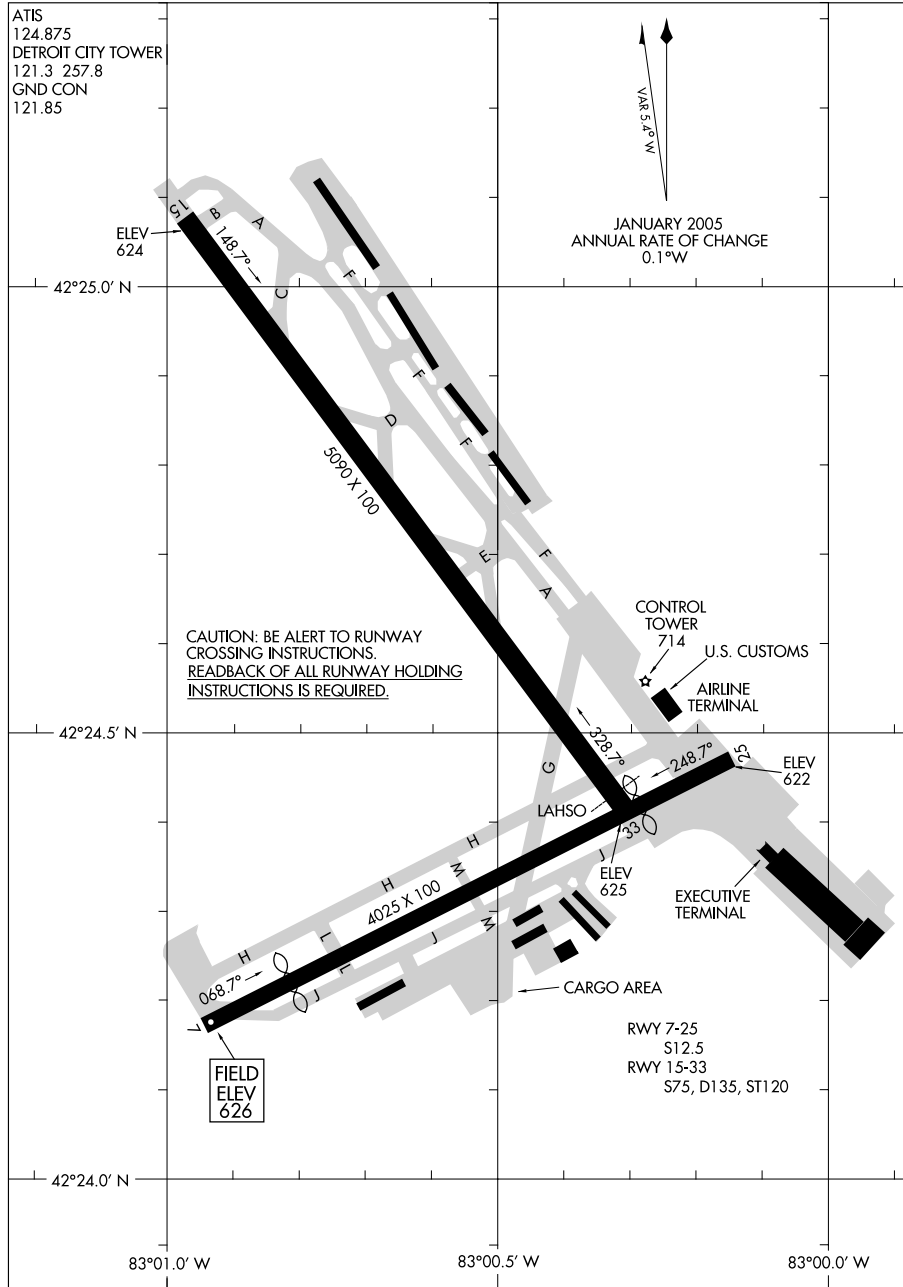
DECATUR, ILLINOIS
DECATUR (DEC)

09015

AIRPORT DIAGRAM

DETROIT/ COLEMAN A. YOUNG MUNI (DET)
DETROIT, MICHIGAN

AL-118 (FAA)



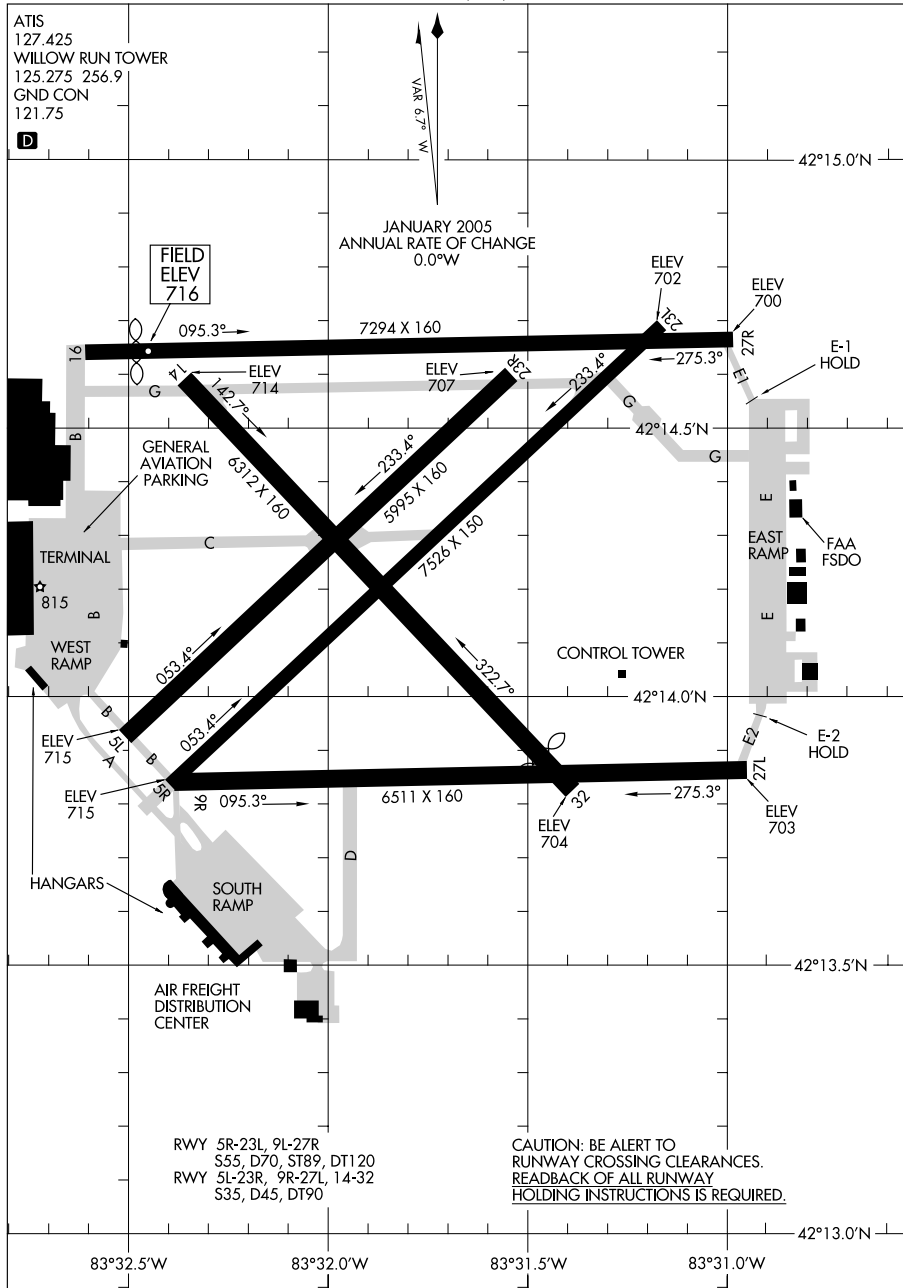
AIRPORT DIAGRAM

09015

DETROIT, MICHIGAN
DETROIT/ COLEMAN A. YOUNG MUNI (DET)

09295

AIRPORT DIAGRAM

DETROIT/WILLOW RUN (YIP)
DETROIT, MICHIGAN

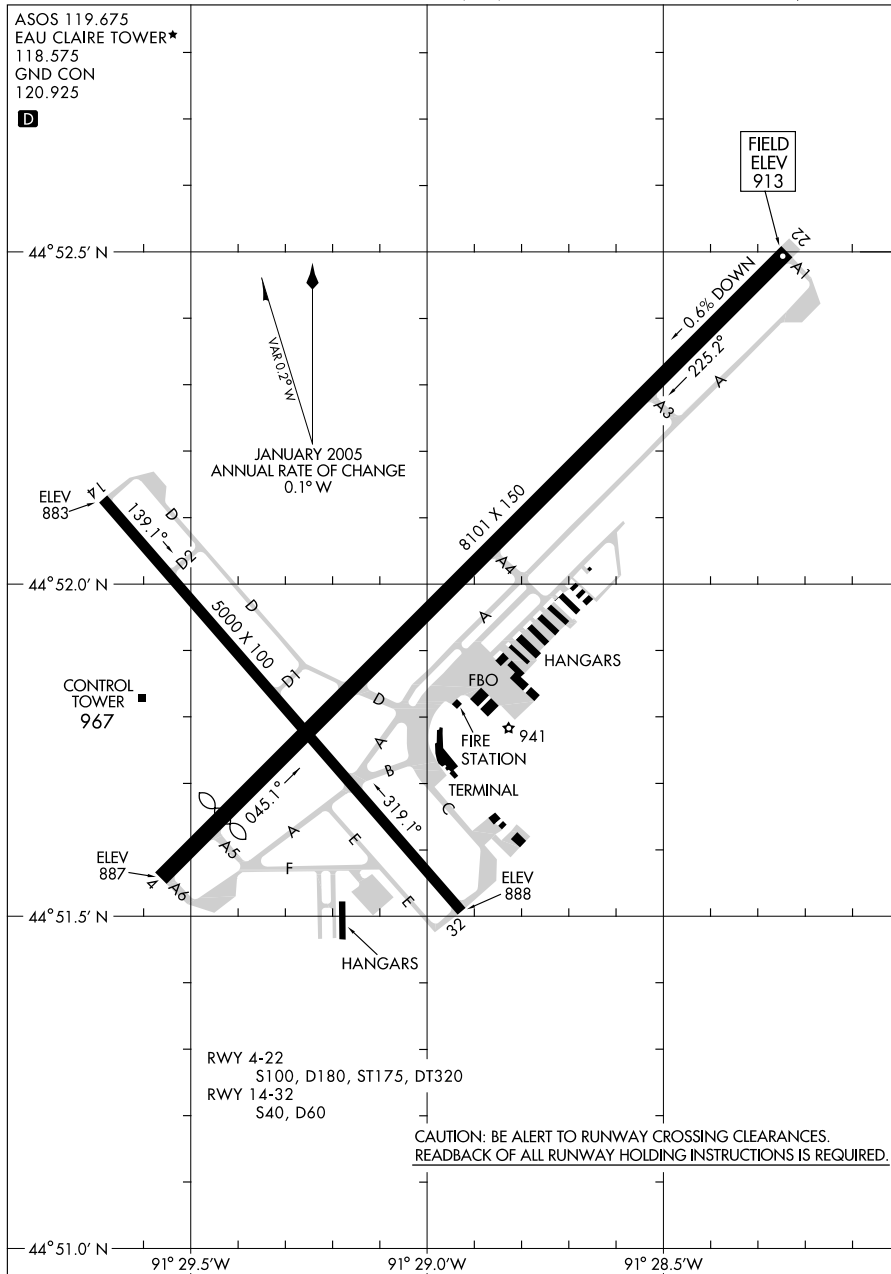
AIRPORT DIAGRAM

09295

DETROIT, MICHIGAN
DETROIT/WILLOW RUN (YIP)

09071

AIRPORT DIAGRAM

EAU CLAIRE/CHIPPEWA VALLEY RGNL (EAU)
AL-937 (FAA) EAU CLAIRE, WISCONSIN

AIRPORT DIAGRAM

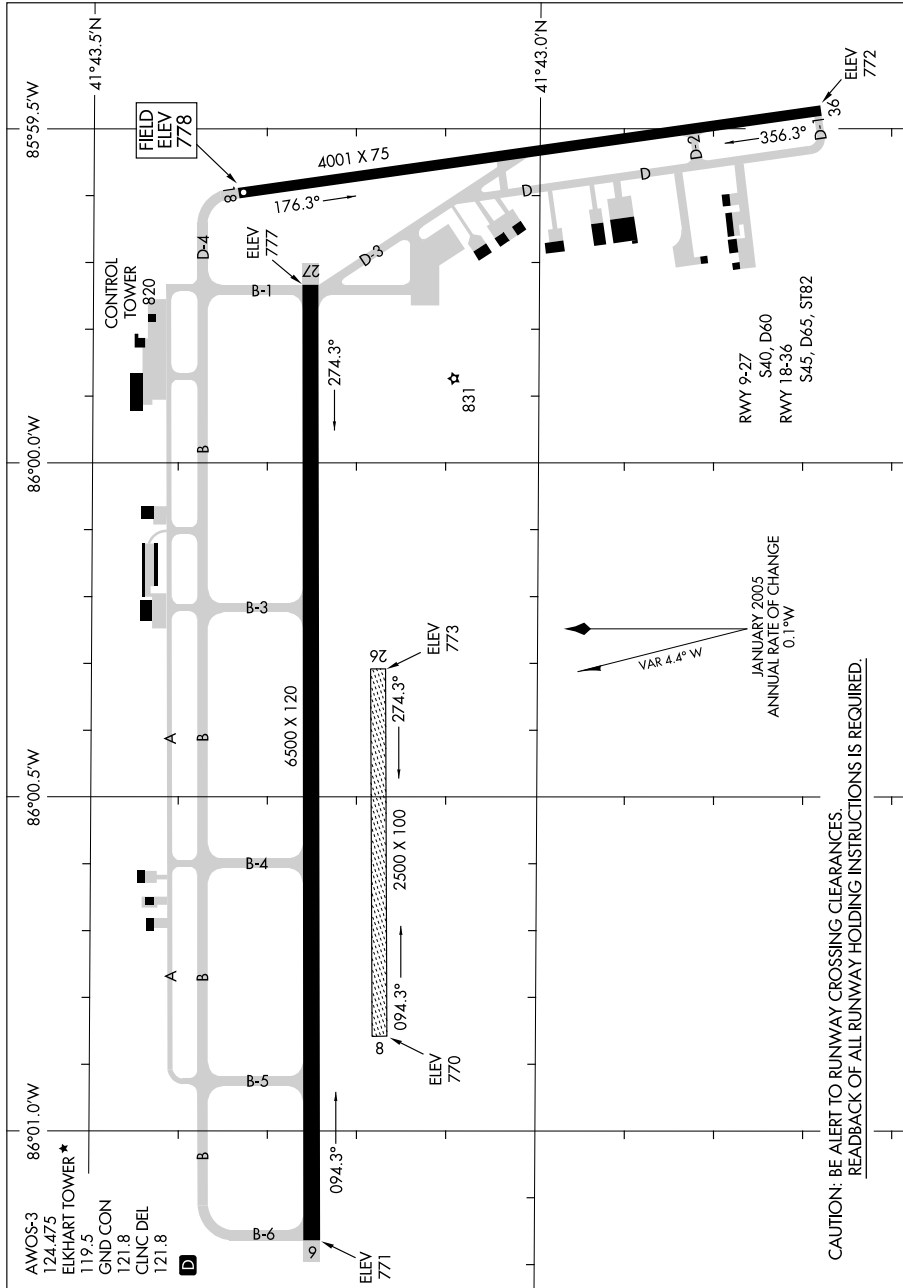
09071

EAU CLAIRE, WISCONSIN
EAU CLAIRE/CHIPPEWA VALLEY RGNL (EAU)

09295

AIRPORT DIAGRAM

AL-5287 (FAA)

ELKHART MUNI (EKM)
ELKHART, INDIANA

AIRPORT DIAGRAM

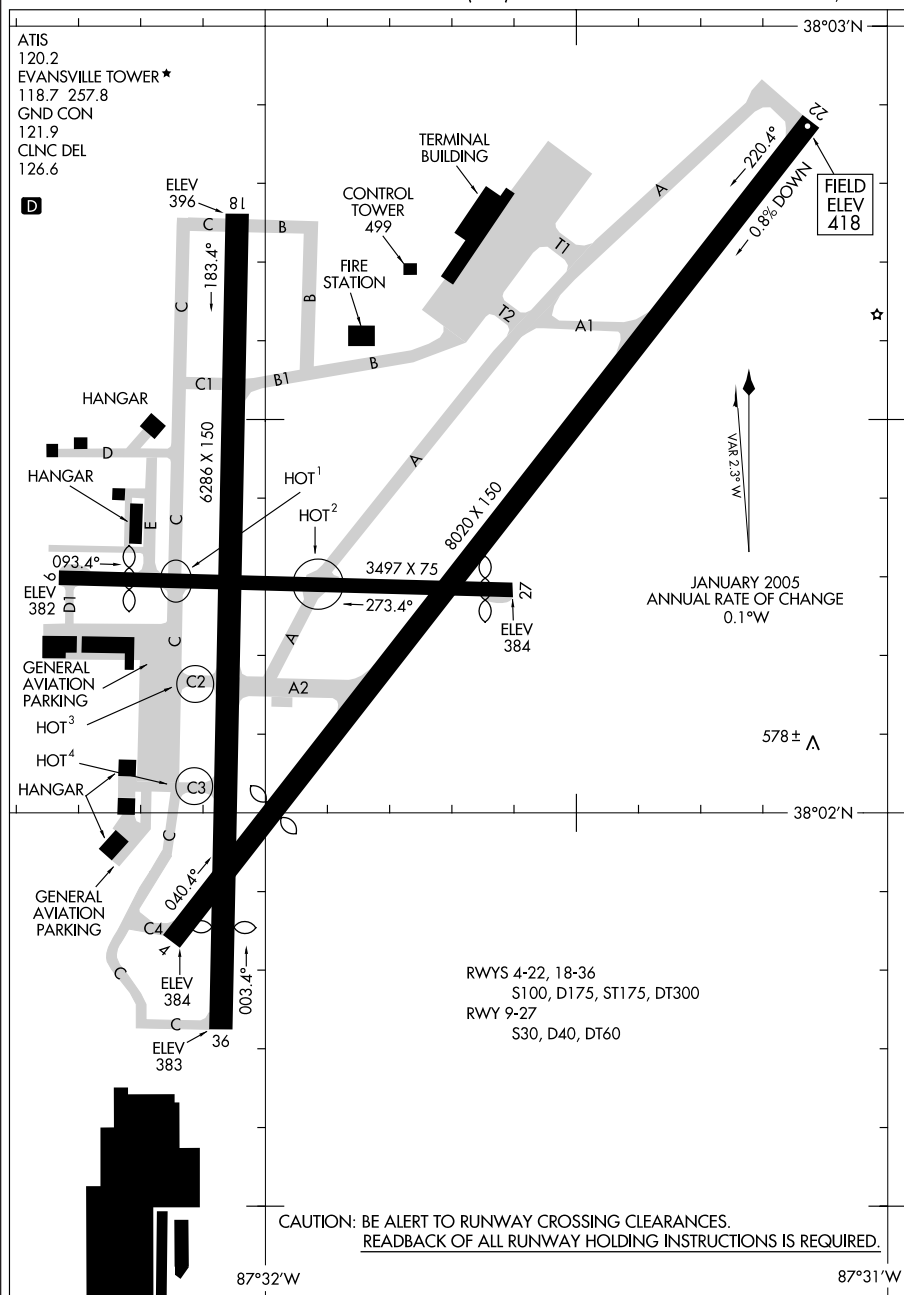
ELKHART, INDIANA
ELKHART MUNI (EKM)

09295

09295

AIRPORT DIAGRAM

AL-513 (FAA)

EVANSVILLE RGNL (E.V.V)
EVANSVILLE, INDIANA

AIRPORT DIAGRAM

09295

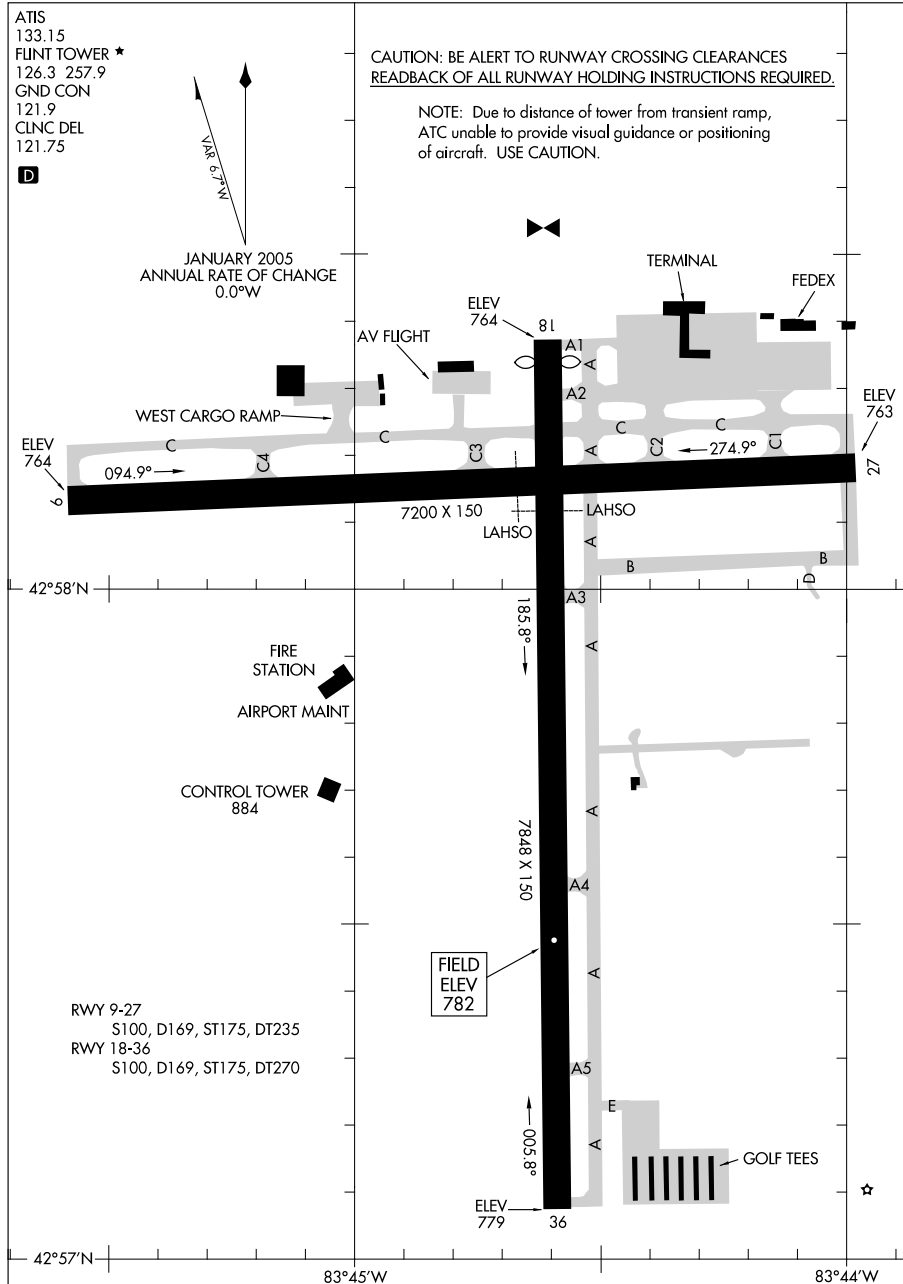
EVANSVILLE, INDIANA
EVANSVILLE RGNL (E.V.V)

09295

AIRPORT DIAGRAM

FLINT / BISHOP INTL (FNT)
FLINT, MICHIGAN

AL-618 (FAA)



AIRPORT DIAGRAM

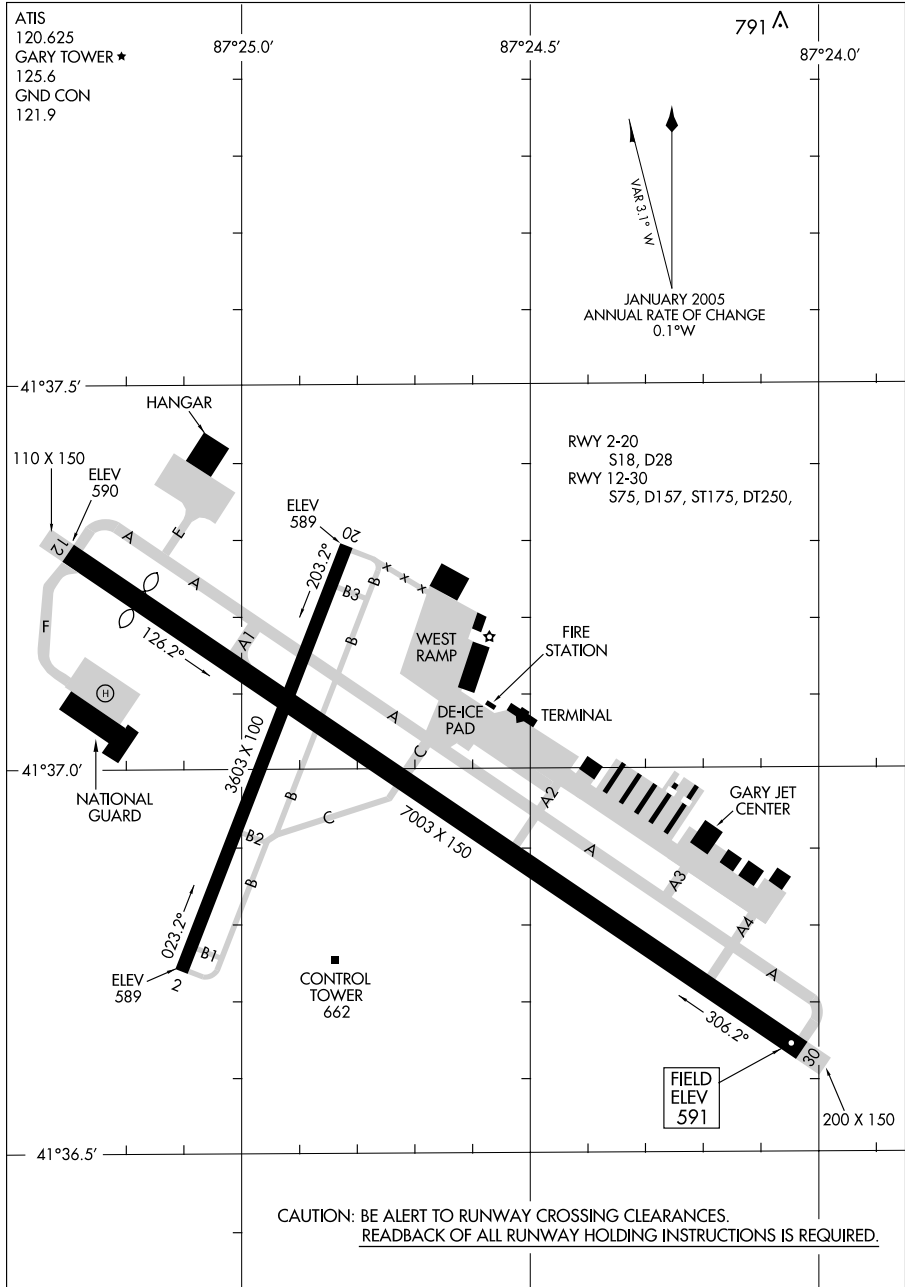
09295

FLINT, MICHIGAN
FLINT / BISHOP INTL (FNT)

09015

AIRPORT DIAGRAM

AL-748 (FAA)

GARY/CHICAGO INTL (GYY)
GARY, INDIANA

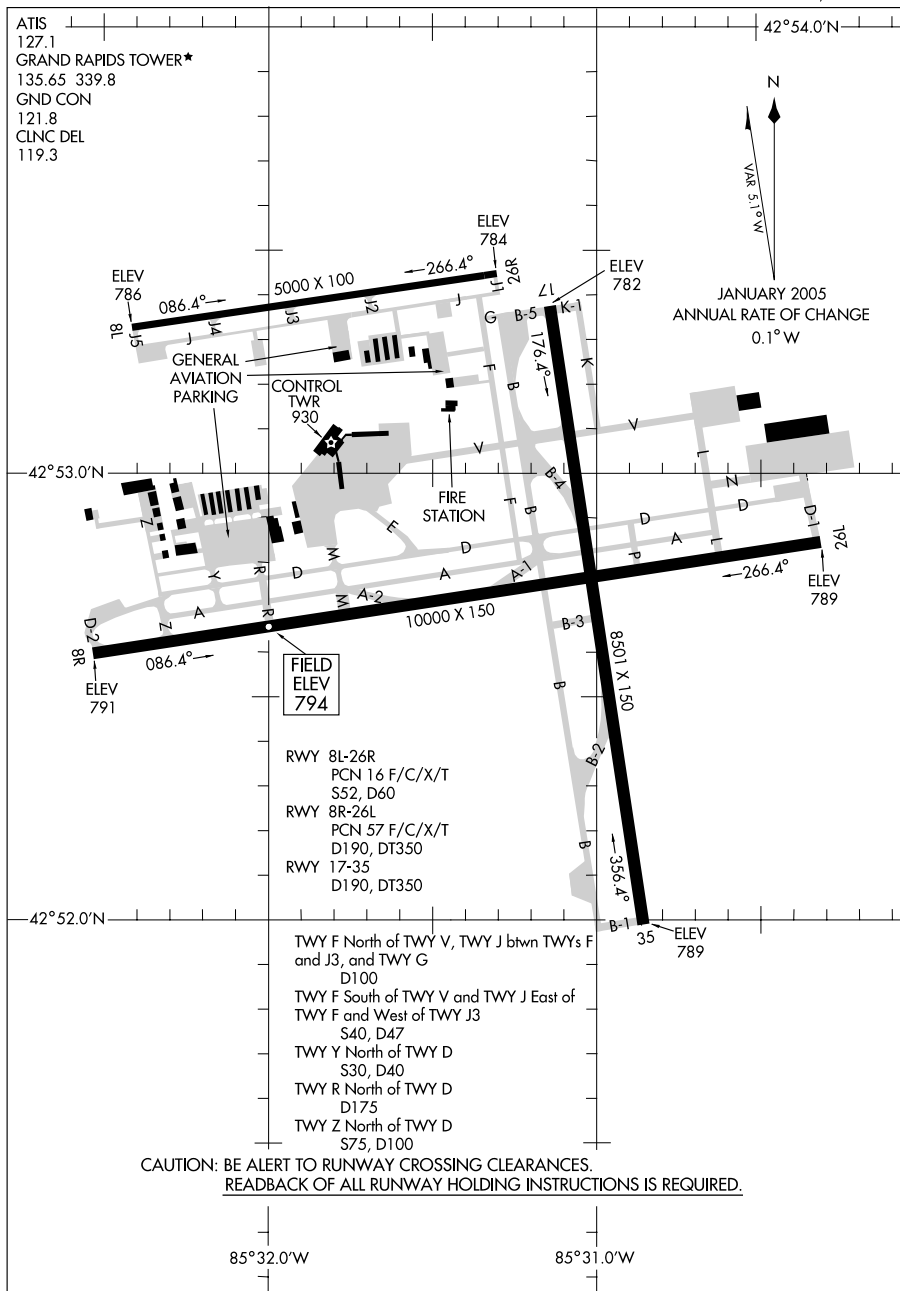
AIRPORT DIAGRAM

09015

GARY, INDIANA
GARY/CHICAGO INTL (GYY)

09183

AIRPORT DIAGRAM

 GRAND RAPIDS / GERALD R. FORD INTL (GRR)
 AL-5184 (FAA) GRAND RAPIDS, MICHIGAN


AIRPORT DIAGRAM

09183

 GRAND RAPIDS, MICHIGAN
 GRAND RAPIDS / GERALD R. FORD INTL (GRR)

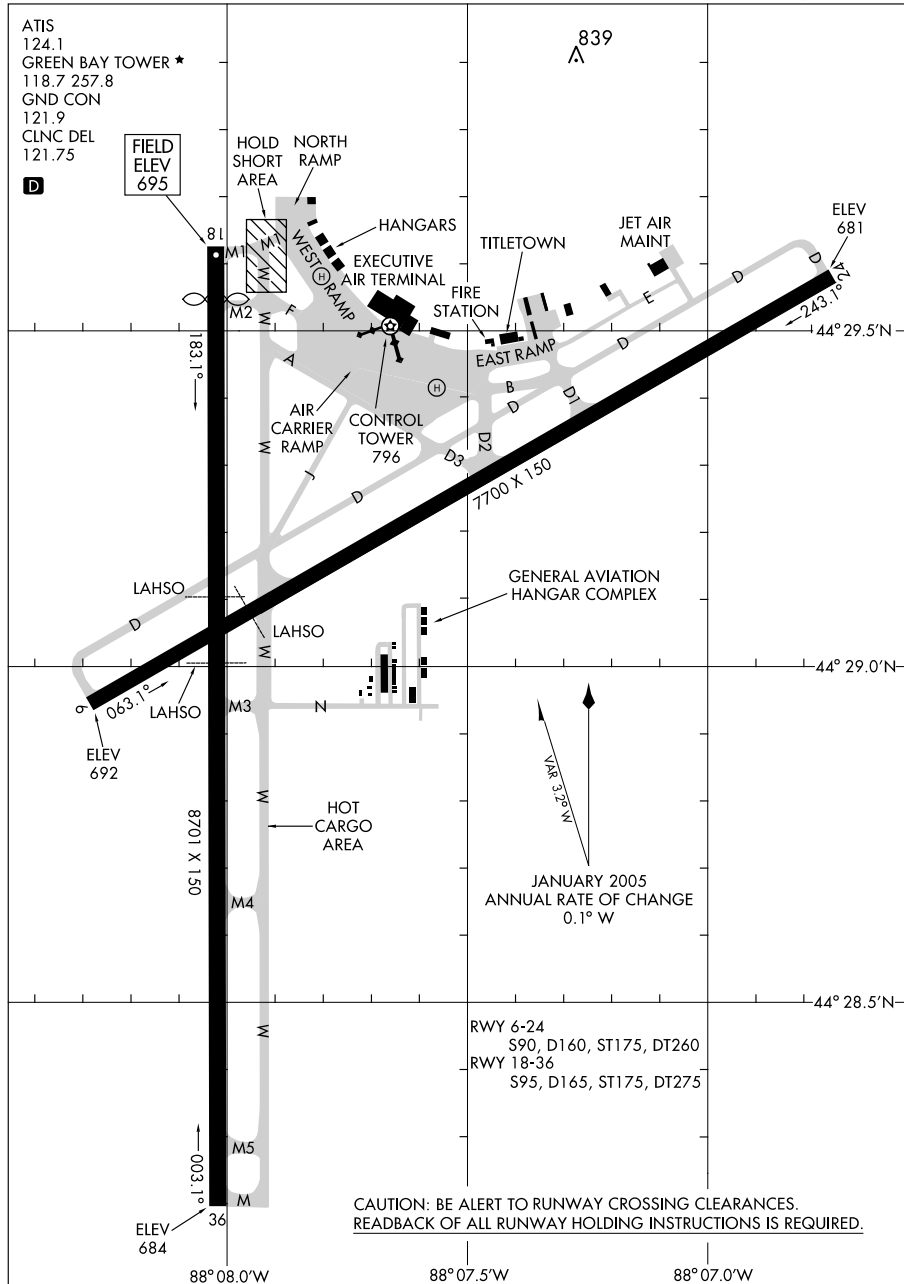
09183

AIRPORT DIAGRAM

AL-873 (FAA)

GREEN BAY/AUSTIN STRAUBEL INTL (GRB)

GREEN BAY, WISCONSIN



AIRPORT DIAGRAM

09183

GREEN BAY, WISCONSIN
GREEN BAY/AUSTIN STRAUBEL INTL (GRB)

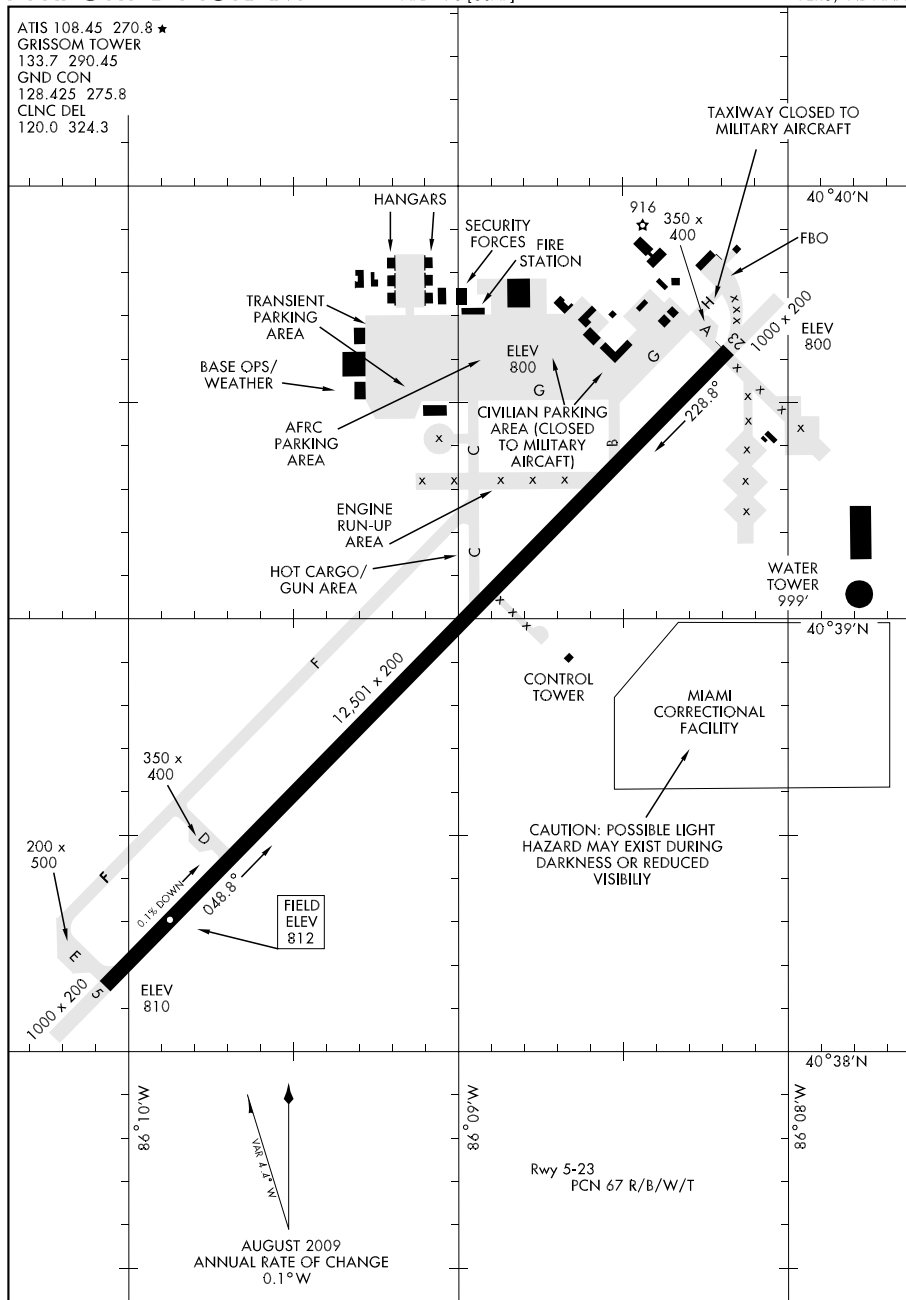
09239

AIRPORT DIAGRAM

AFD-470 [USAF]

GRISSOM ARB (KGUS)

PERU, INDIANA



AIRPORT DIAGRAM

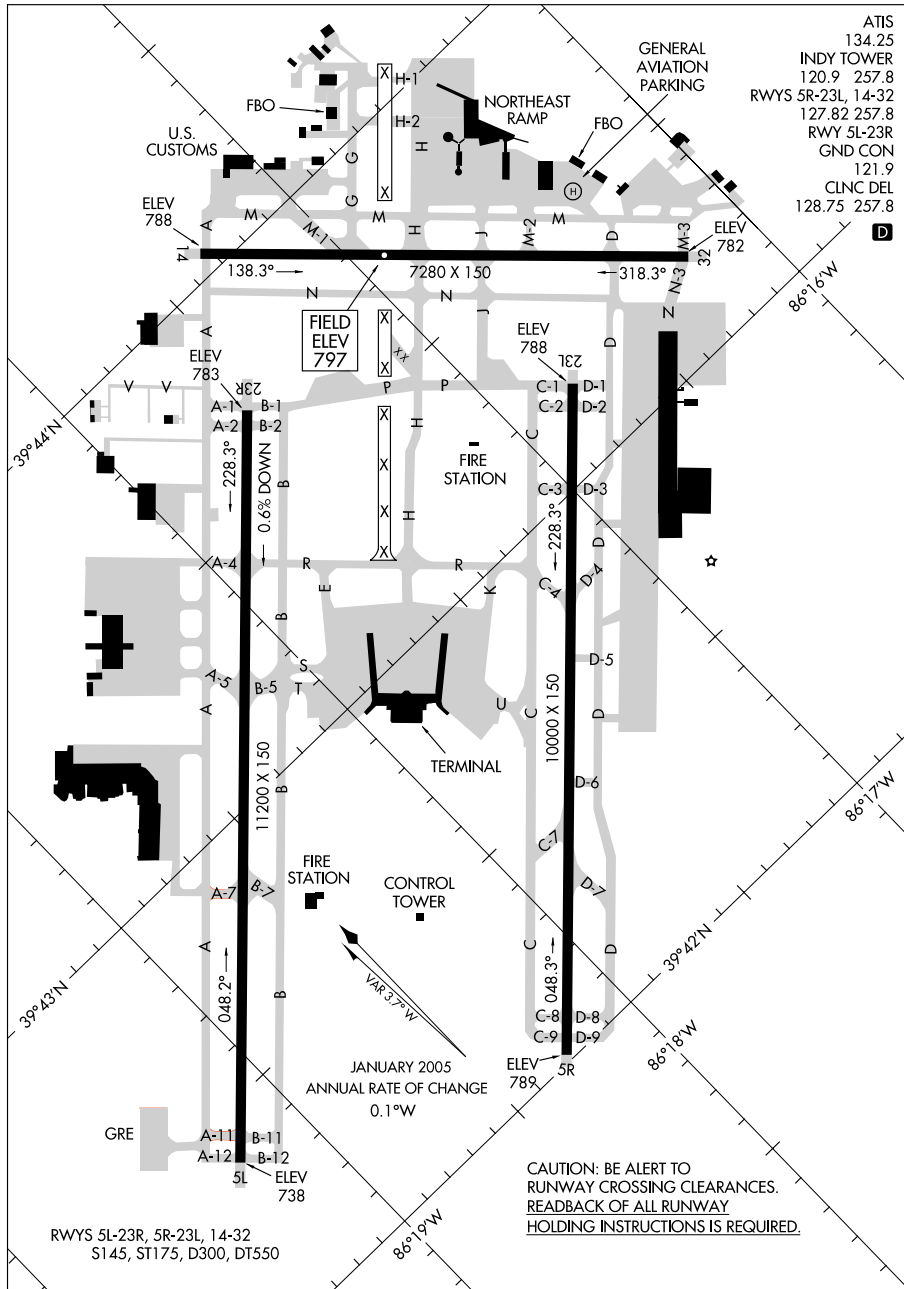
PERU, INDIANA

GRISSOM ARB (KGUS)

09295

AIRPORT DIAGRAM

AL-203 (FAA)

INDIANAPOLIS INTL (IND)
INDIANAPOLIS, INDIANA

AIRPORT DIAGRAM

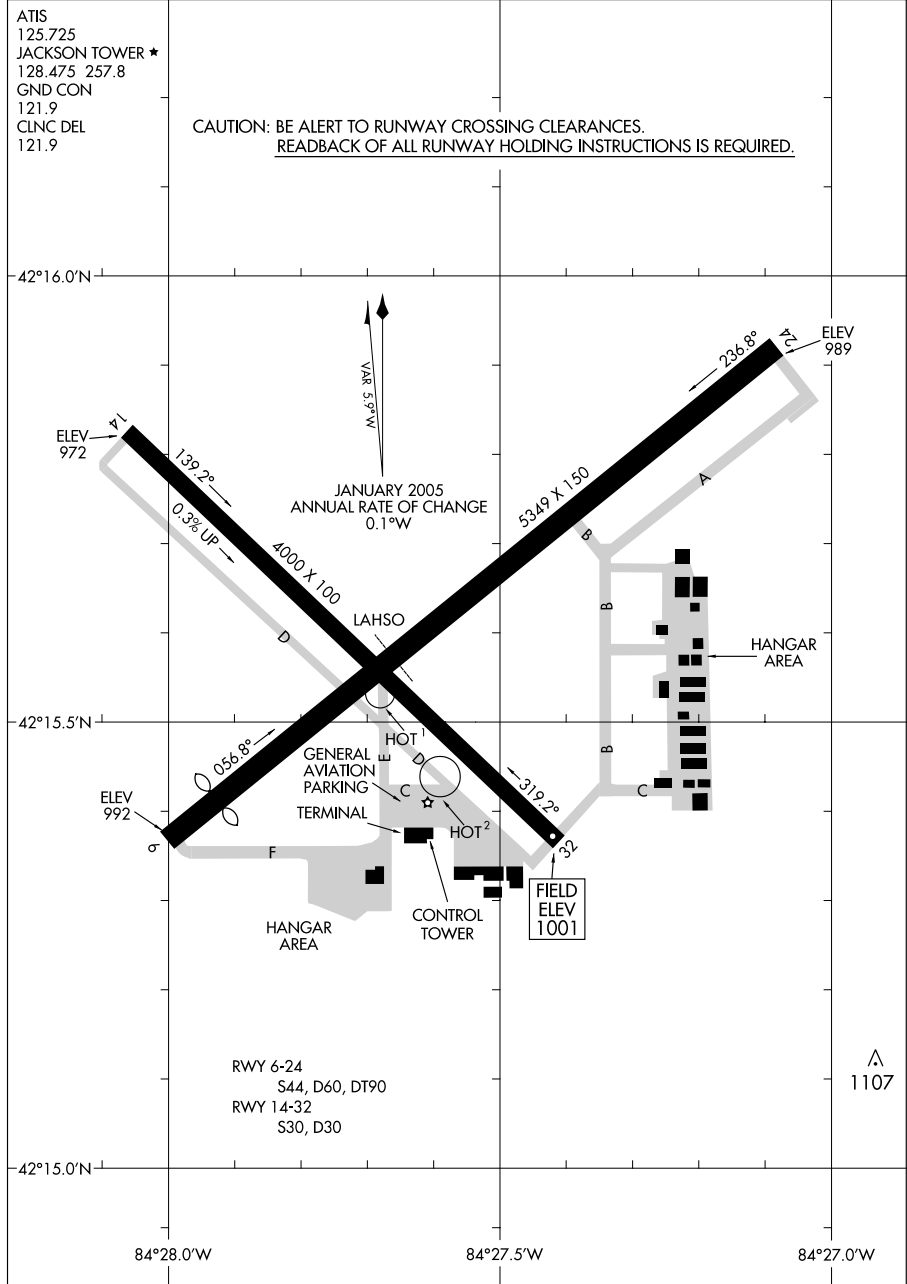
09295

INDIANAPOLIS, INDIANA
INDIANAPOLIS INTL (IND)

09295

AIRPORT DIAGRAM

AL-861 (FAA)

JACKSON COUNTY-REYNOLDS FIELD (JXXN)
JACKSON, MICHIGAN

AIRPORT DIAGRAM

09295

JACKSON, MICHIGAN
JACKSON COUNTY-REYNOLDS FIELD (JXXN)

JANESVILLE, WISCONSIN



JANESVILLE, WISCONSIN
JANESVILLE/SOUTHERN WISCONSIN RGNL (JVL)

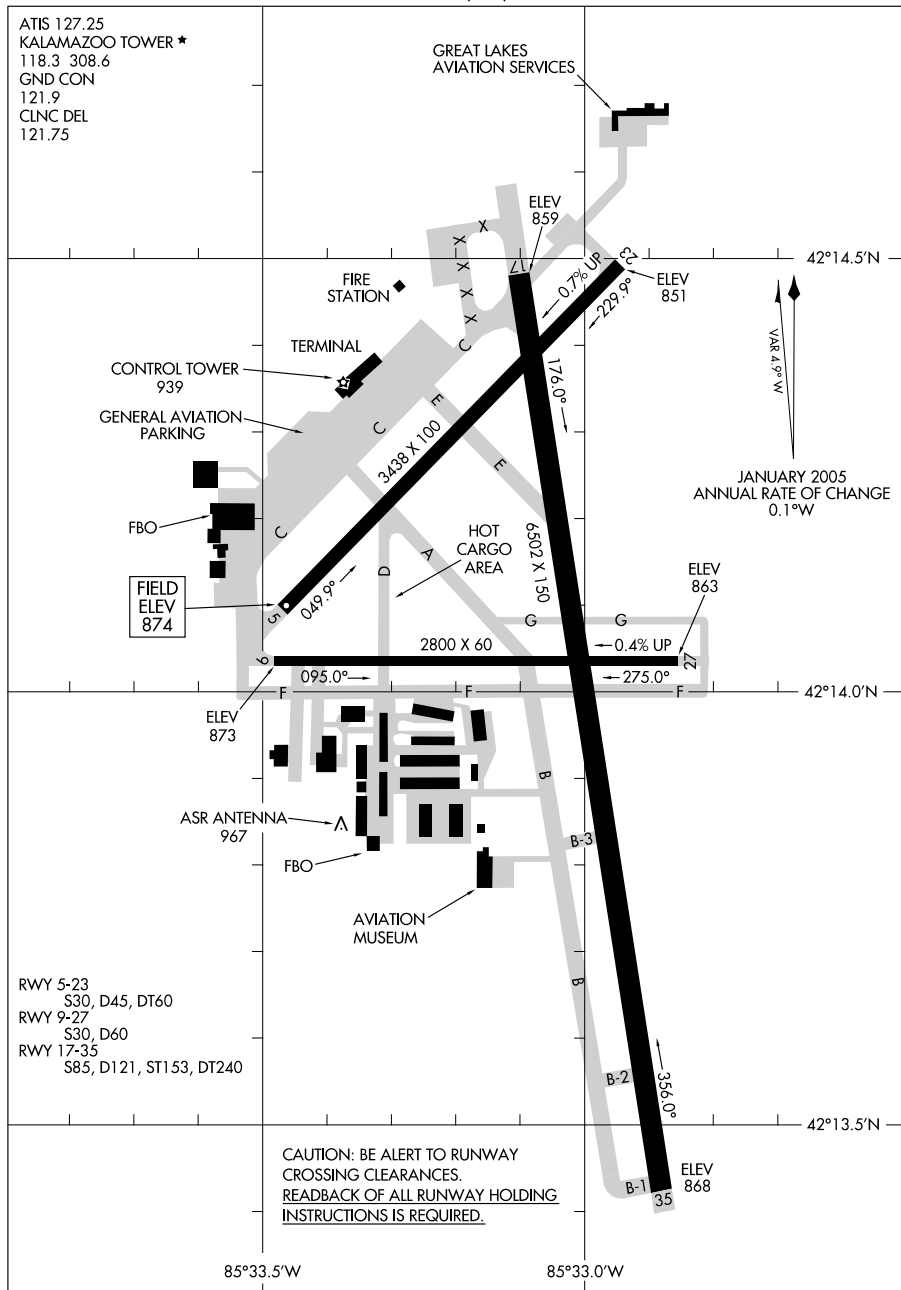
EC, 22 OCT 2009 to 17 DEC 2009

08325

AIRPORT DIAGRAM

KALAMAZOO/ BATTLE CREEK INTL (AZO)
KALAMAZOO, MICHIGAN

AL-717 (FAA)



AIRPORT DIAGRAM

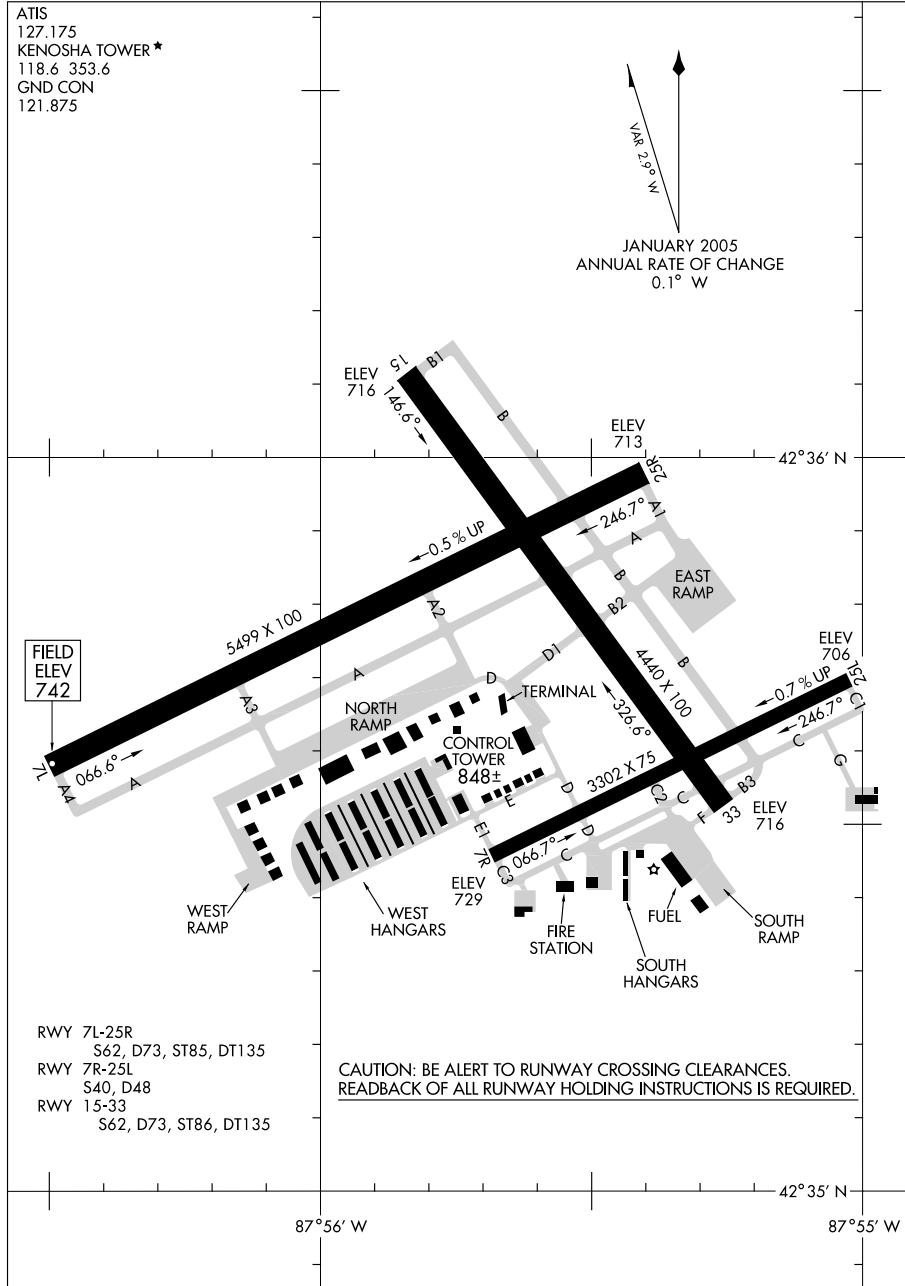
08325

KALAMAZOO, MICHIGAN
KALAMAZOO/ BATTLE CREEK INTL (AZO)

09239

AIRPORT DIAGRAM

AL-5449 (FAA)

KENOSHA RGNL (E,N,W)
KENOSHA, WISCONSIN

AIRPORT DIAGRAM

09239

KENOSHA, WISCONSIN
KENOSHA RGNL (E,N,W)

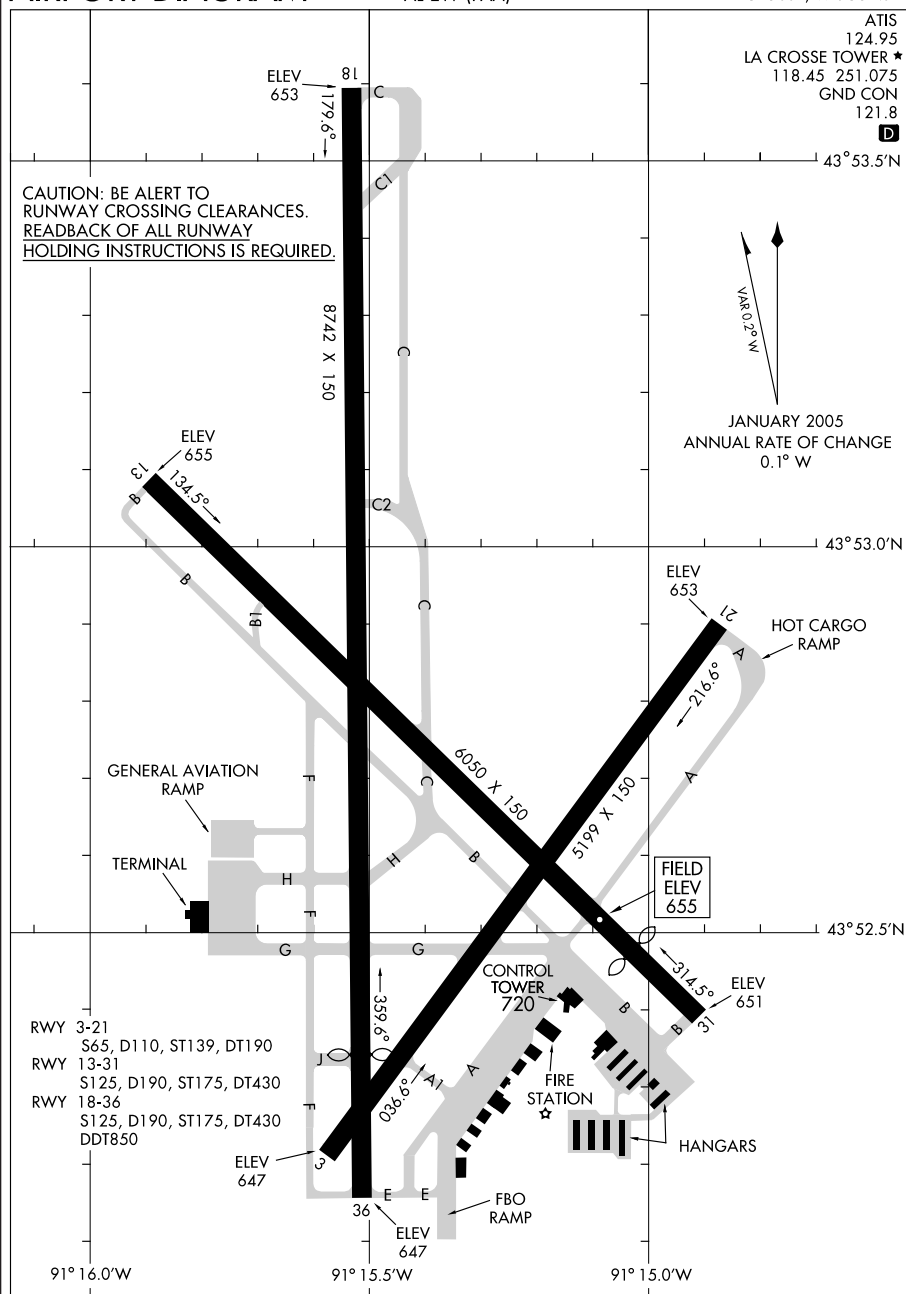
09295

AIRPORT DIAGRAM

AL-219 (FAA)

LA CROSSE MUNI (LSE)

LA CROSSE, WISCONSIN



AIRPORT DIAGRAM

09295

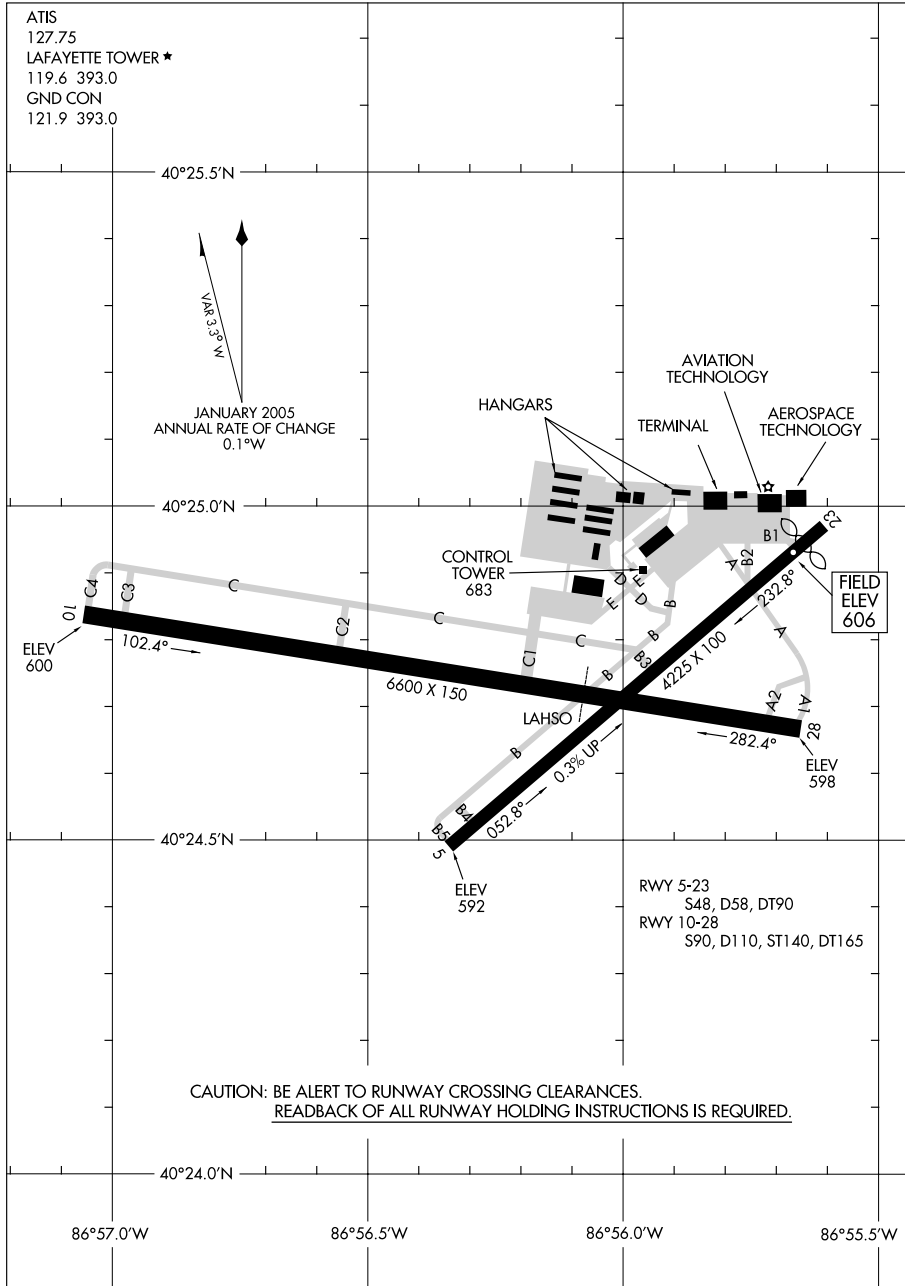
LA CROSSE, WISCONSIN

LA CROSSE MUNI (LSE)

09071

AIRPORT DIAGRAM

AL-220 (FAA)

LAFAYETTE/ PURDUE UNIVERSITY (LAF)
LAFAYETTE, INDIANA

AIRPORT DIAGRAM

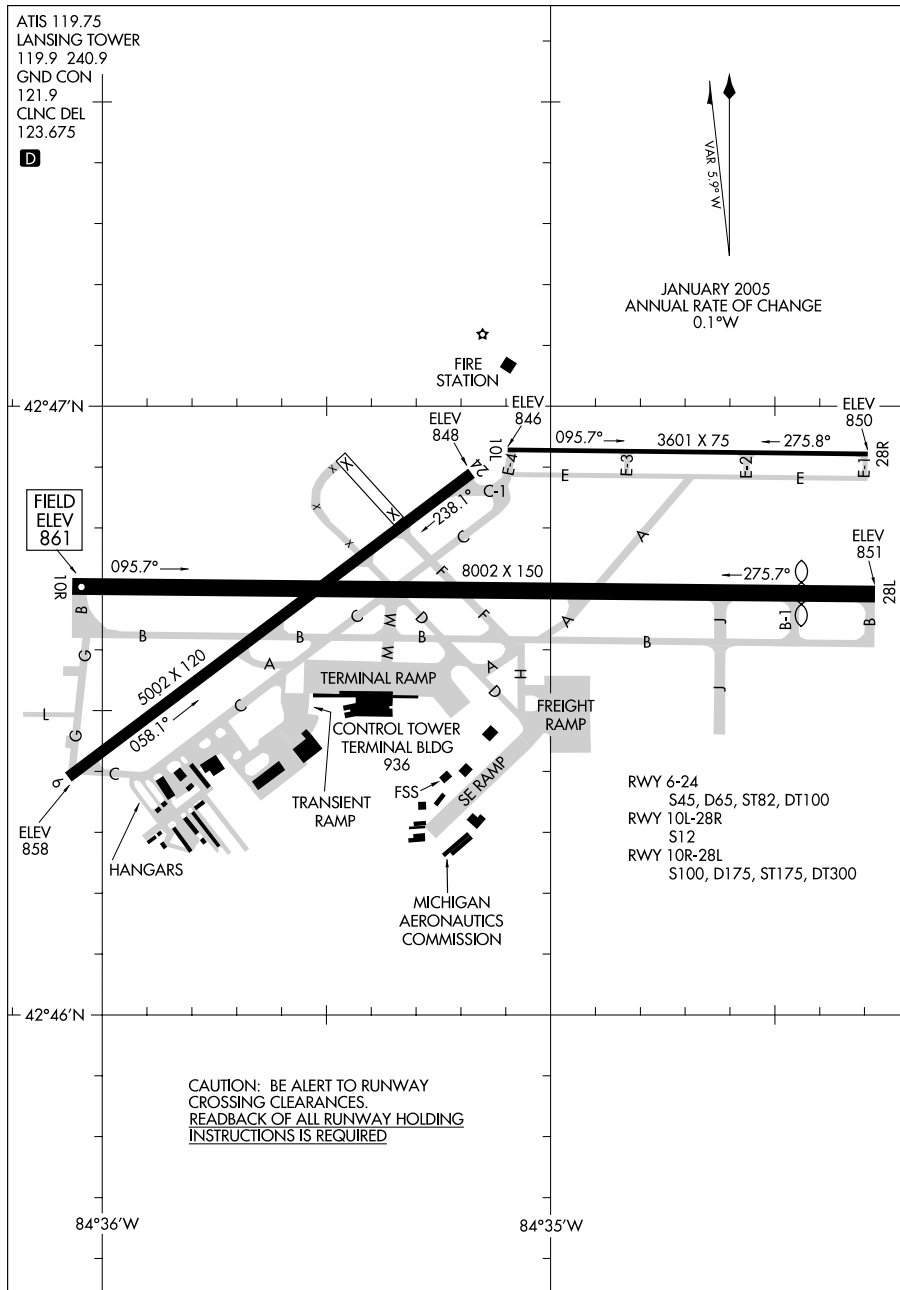
09071

LAFAYETTE, INDIANA
LAFAYETTE/ PURDUE UNIVERSITY (LAF)

08325

AIRPORT DIAGRAM

AL-224 (FAA)

LANSING/ CAPITAL CITY (L.A.N)
LANSING, MICHIGAN

AIRPORT DIAGRAM

08325

LANSING, MICHIGAN
LANSING/ CAPITAL CITY (L.A.N)

09295

AIRPORT DIAGRAM

MADISON/DANE COUNTY RGNL TRUAX FIELD (MSN)
AL-245 (FAA) MADISON, WISCONSIN

ATIS

124.65 278.3

MADISON TOWER*

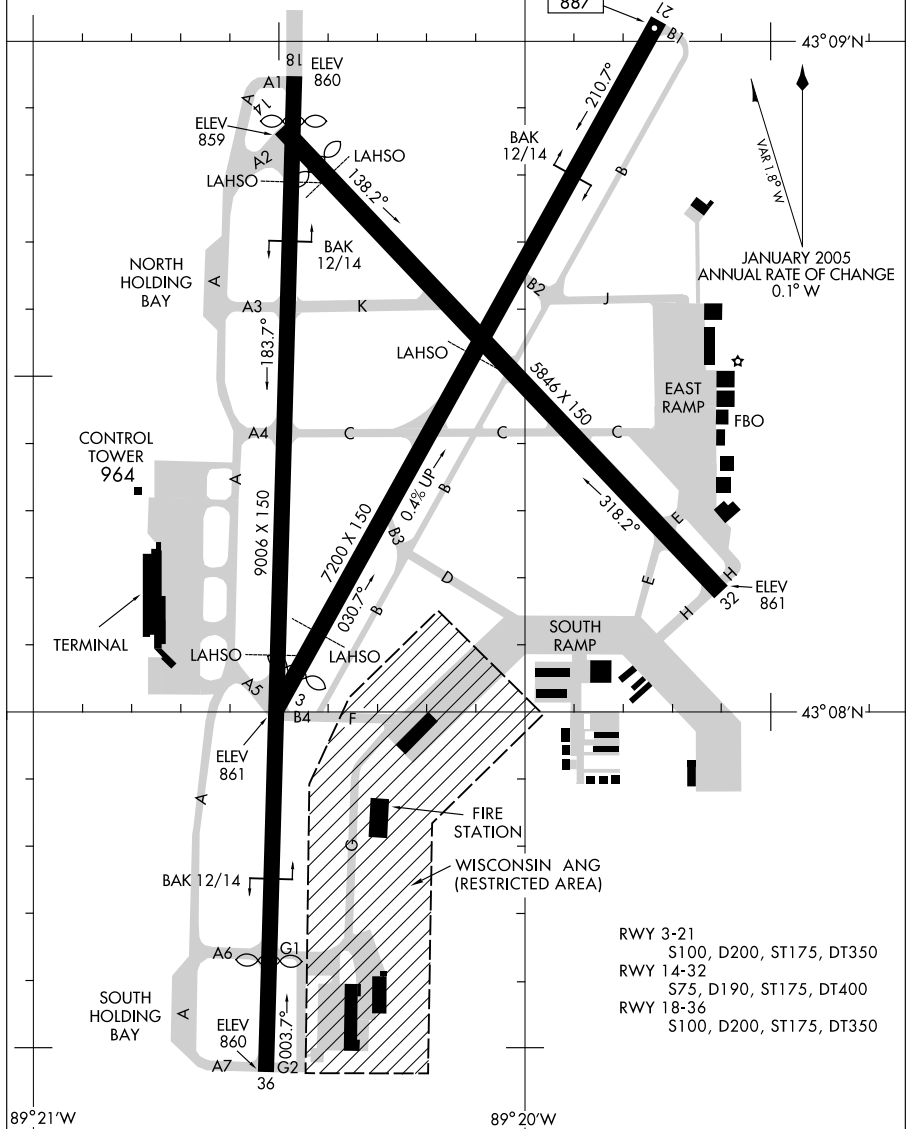
119.3 257.8

GND CON

121.9 348.6

CLNC DEL

121.62

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBCK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

09295

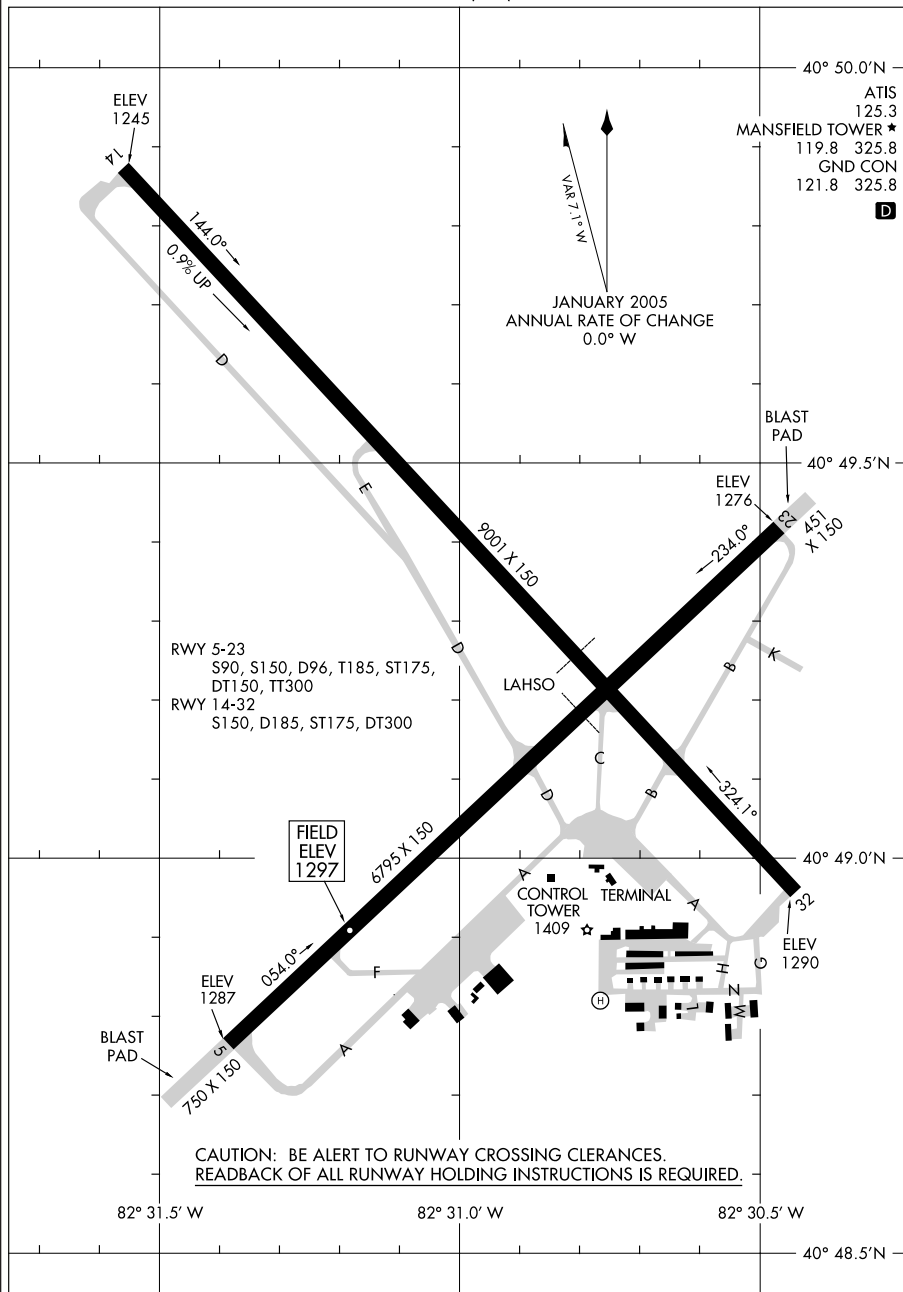
MADISON, WISCONSIN
MADISON/DANE COUNTY RGNL TRUAX FIELD (MSN)

09295

AIRPORT DIAGRAM

AL-860 (FAA)

MANSFIELD LAHM RGNL (MFD)
MANSFIELD, OHIO



AIRPORT DIAGRAM

09295

MANSFIELD, OHIO
MANSFIELD LAHM RGNL (MFD)

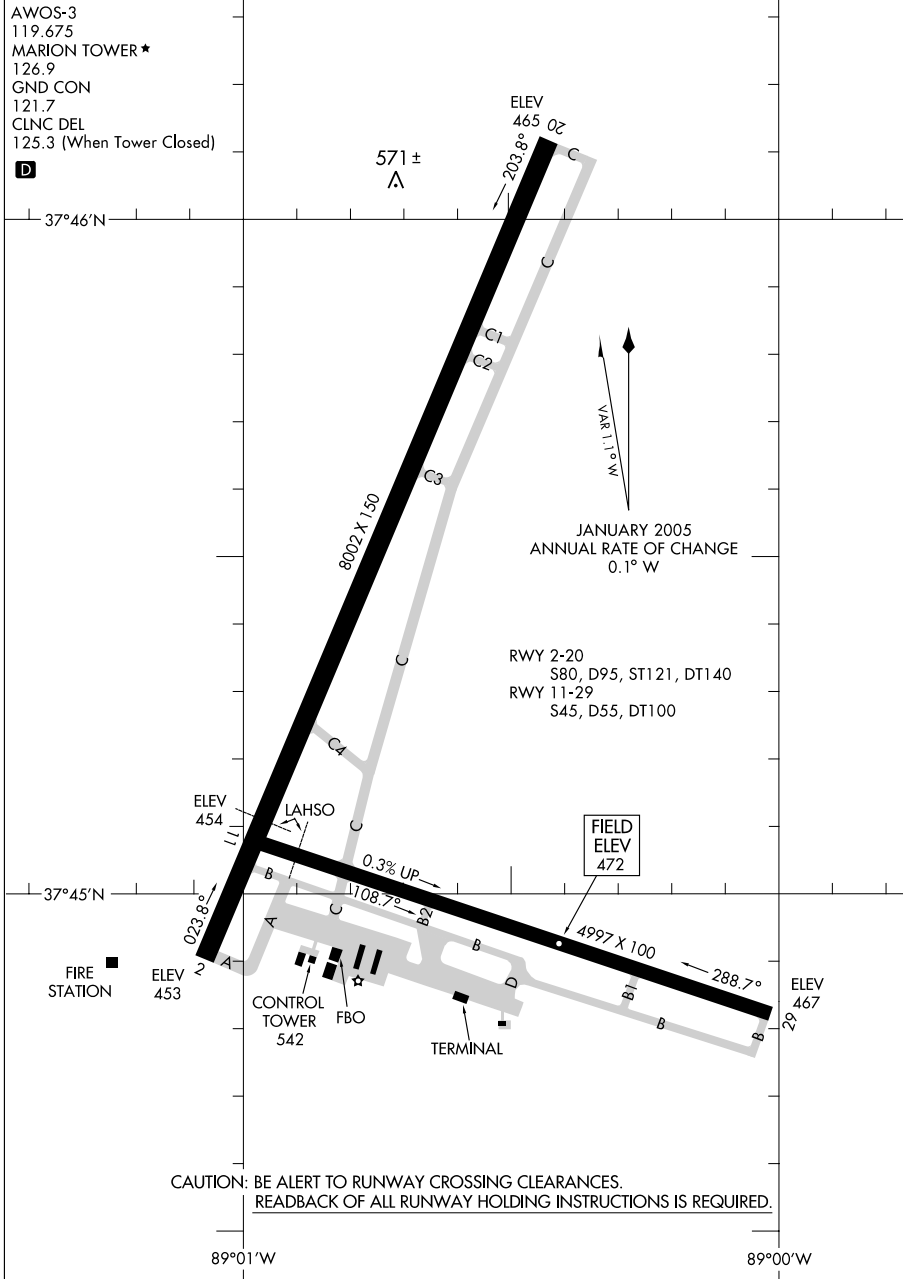
09295

AIRPORT DIAGRAM

AL-5215 (FAA)

MARION / WILLIAMSON COUNTY RGNL (MWA)

MARION, ILLINOIS



AIRPORT DIAGRAM

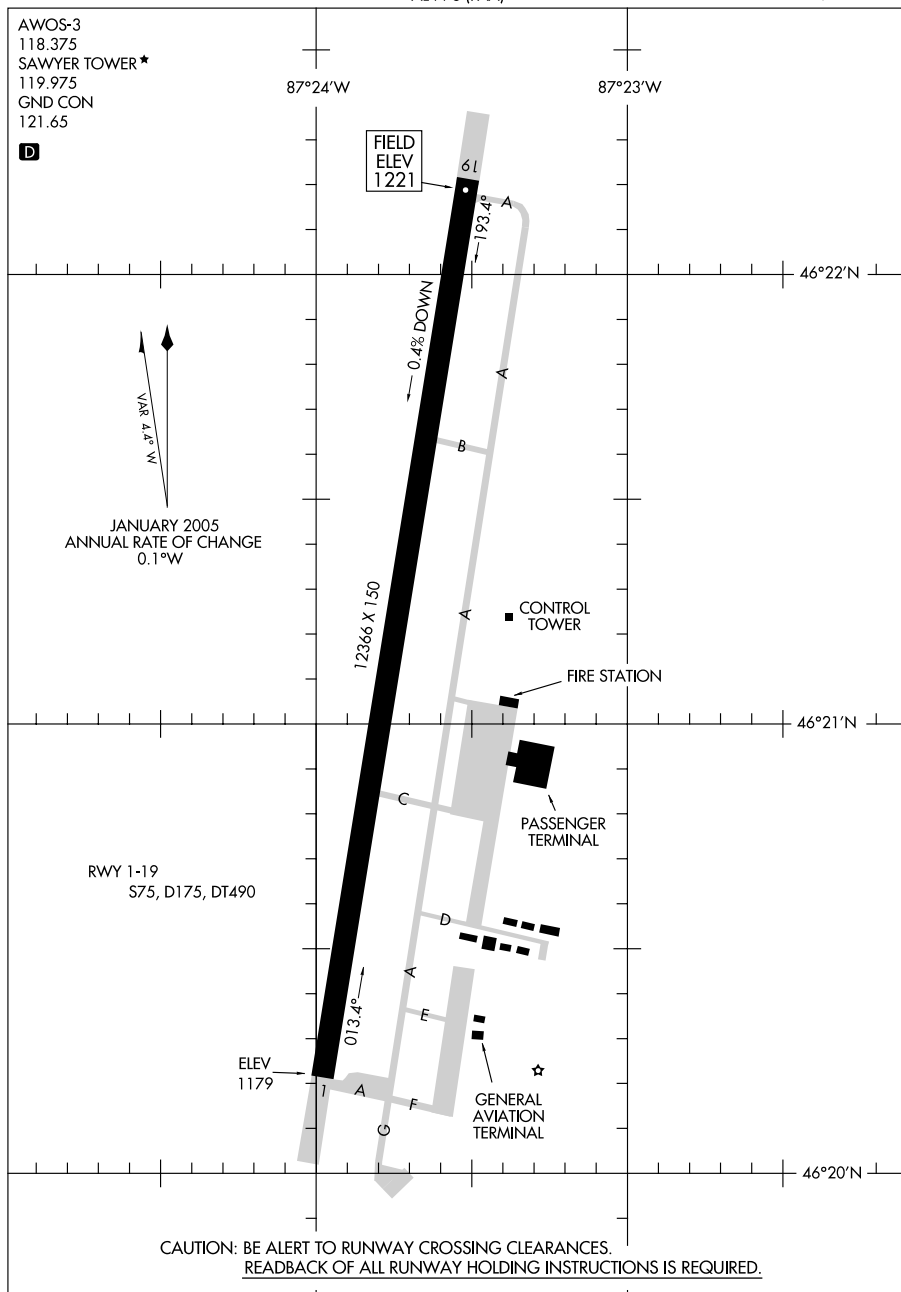
09295

MARION, ILLINOIS
MARION / WILLIAMSON COUNTY RGNL (MWA)

09295

AIRPORT DIAGRAM

AL-773 (FAA)

MARQUETTE/ SAWYER INTL (SAW)
MARQUETTE, MICHIGAN

AIRPORT DIAGRAM

09295

MARQUETTE, MICHIGAN
MARQUETTE/ SAWYER INTL (SAW)

09295

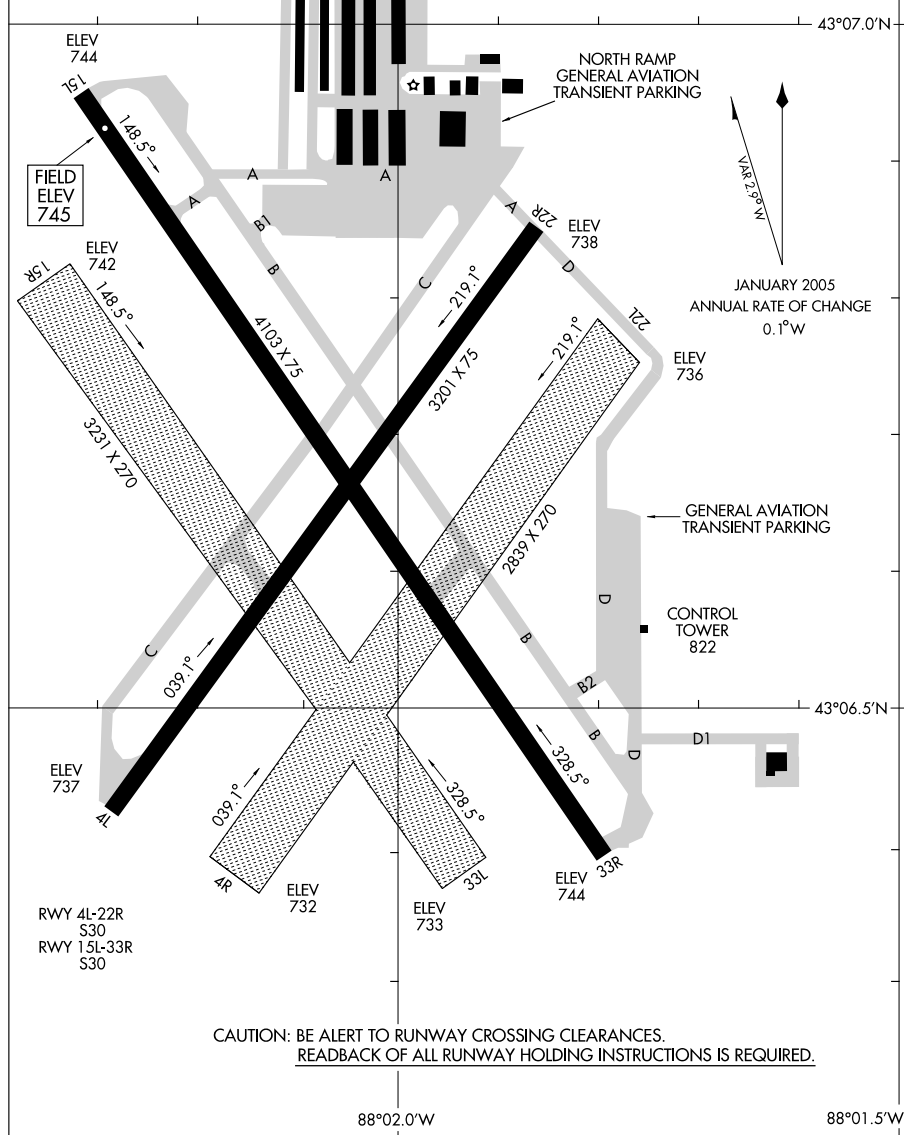
AIRPORT DIAGRAM

MILWAUKEE/ LAWRENCE J. TIMMERMAN (MWC)

AL-5077 (FAA)

MILWAUKEE, WISCONSIN

ATIS
128.3
TIMMERMAN TOWER★
120.5
GND CON
121.7
CLNC DEL
121.7 (When Tower Closed)



AIRPORT DIAGRAM

09295

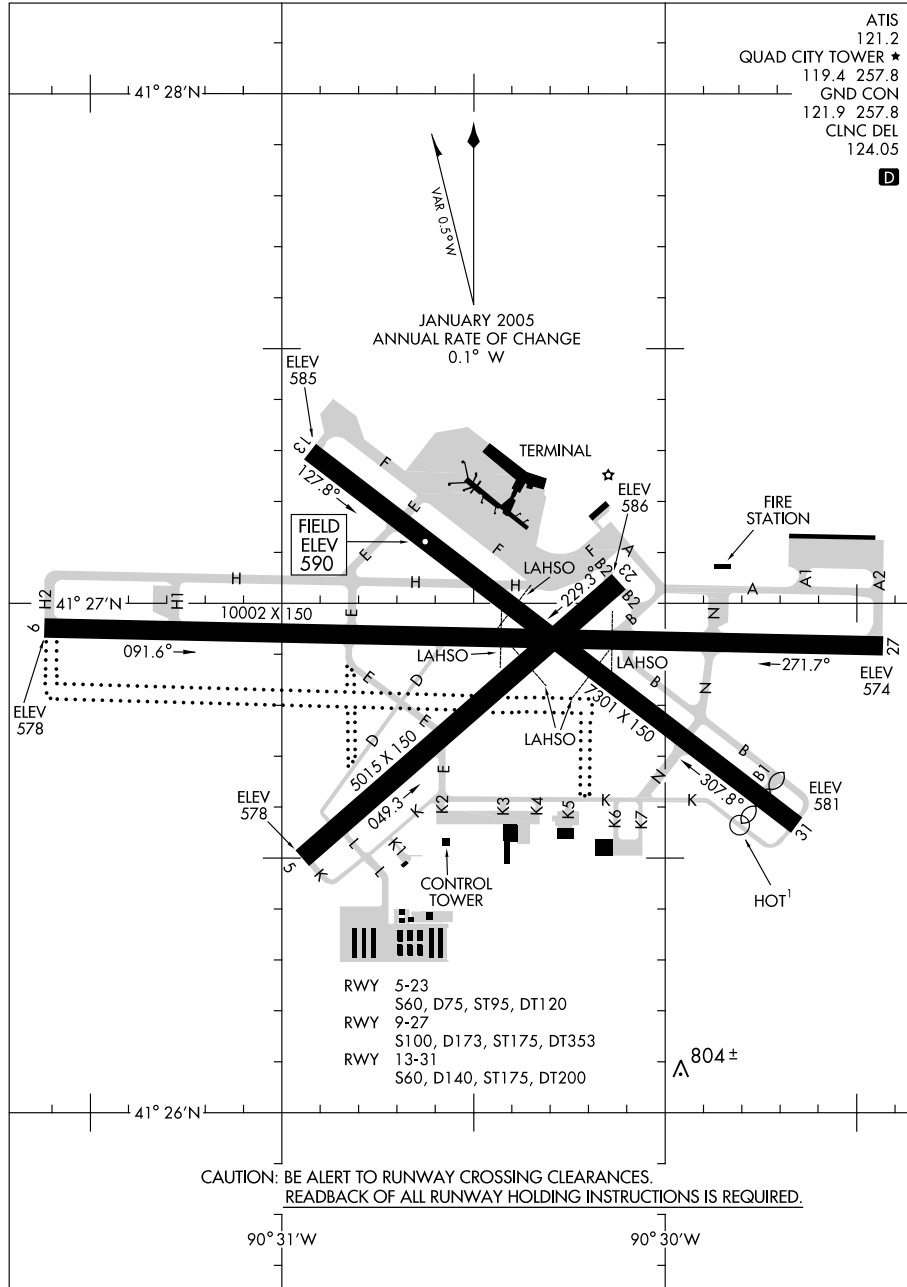
MILWAUKEE, WISCONSIN
MILWAUKEE/ LAWRENCE J. TIMMERMAN (MWC)

09295

AIRPORT DIAGRAM

AL-269 (FAA)

MOLINE/QUAD CITY INTL (MLI)
MOLINE, ILLINOIS



AIRPORT DIAGRAM

09295

MOLINE, ILLINOIS
MOLINE/QUAD CITY INTL (MLI)

09295

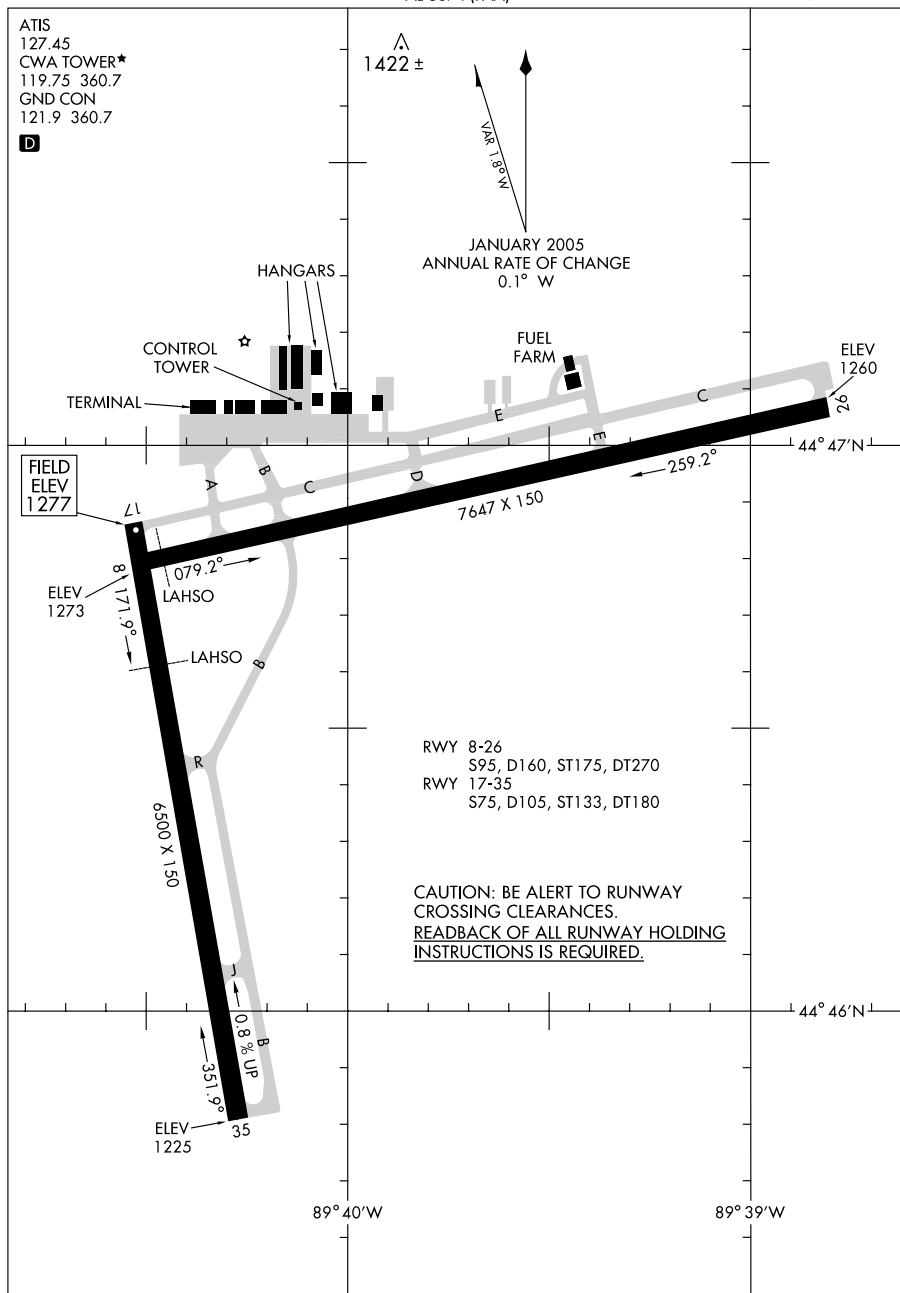
AIRPORT DIAGRAM

MOSINEE/CENTRAL WISCONSIN (CWA)
MOSINEE, WISCONSIN

AL-5674 (FAA)

ATIS
127.45
CWA TOWER*
119.75 360.7
GND CON
121.9 360.7

D



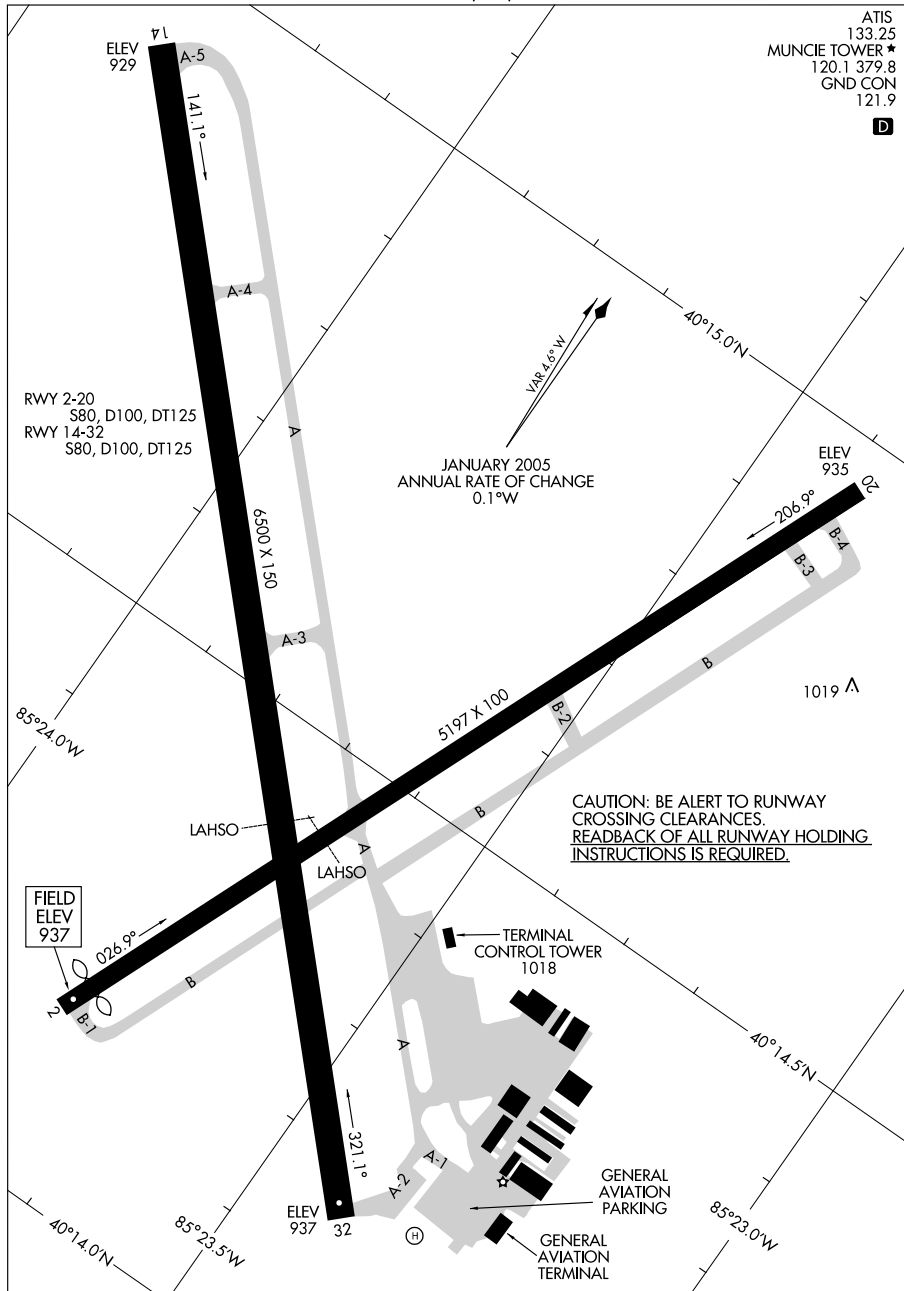
AIRPORT DIAGRAM

09295

MOSINEE, WISCONSIN
MOSINEE/CENTRAL WISCONSIN (CWA)

09295

AIRPORT DIAGRAM

MUNCIE/DELAWARE COUNTY-JOHNSON FIELD (MIE)
AL-5011 (FAA) MUNCIE, INDIANA

AIRPORT DIAGRAM

09295

MUNCIE, INDIANA
MUNCIE/DELAWARE COUNTY-JOHNSON FIELD (MIE)

09295

AIRPORT DIAGRAM

AL-278 (FAA)

MUSKEGON COUNTY (MKG)
MUSKEGON, MICHIGAN

ATIS

124.3

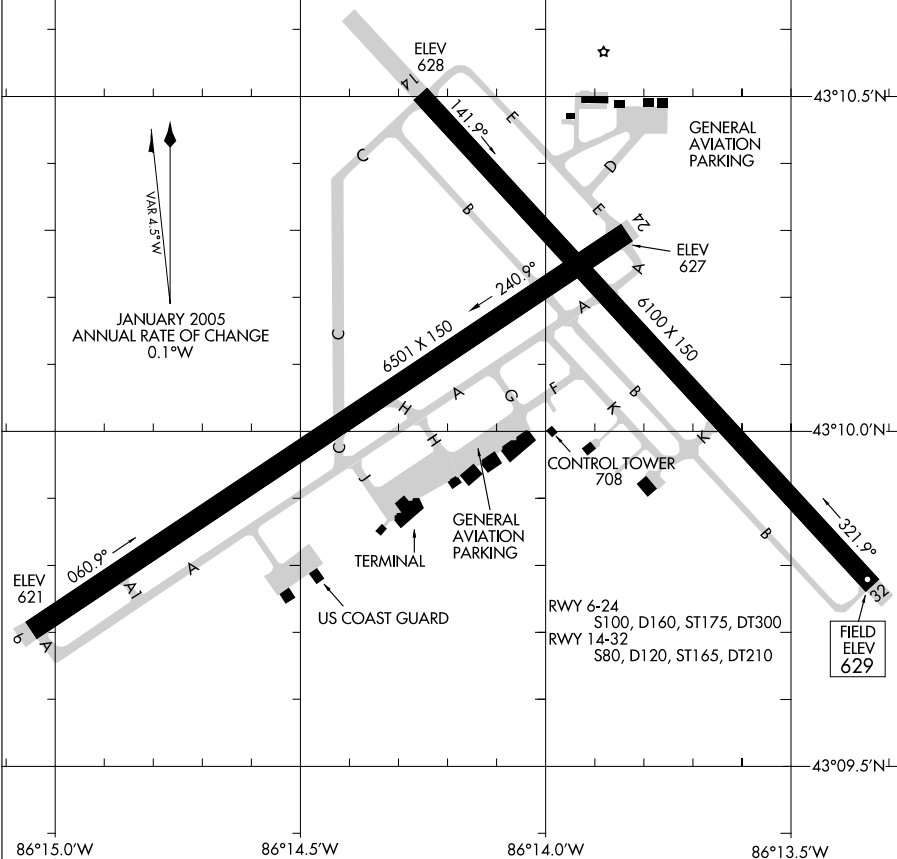
MUSKEGON TOWER *

126.25 363.1

GND CON

121.6

D

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBCK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

09295

MUSKEGON, MICHIGAN
MUSKEGON COUNTY (MKG)

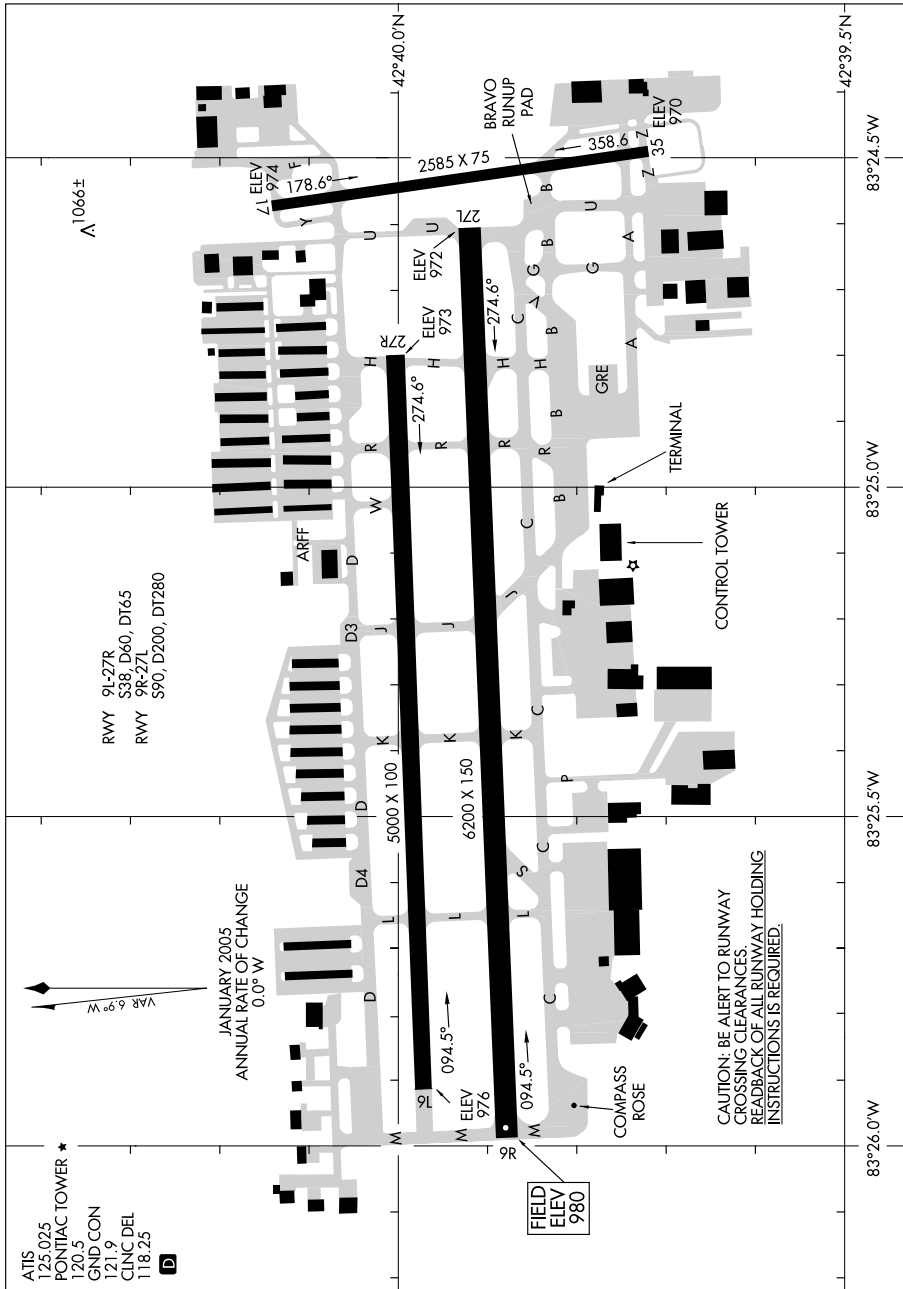
09295

AIRPORT DIAGRAM

PONTIAC/OAKLAND COUNTY INTL (PTK)

PONTIAC, MICHIGAN

AL-5052 (FAA)



AIRPORT DIAGRAM

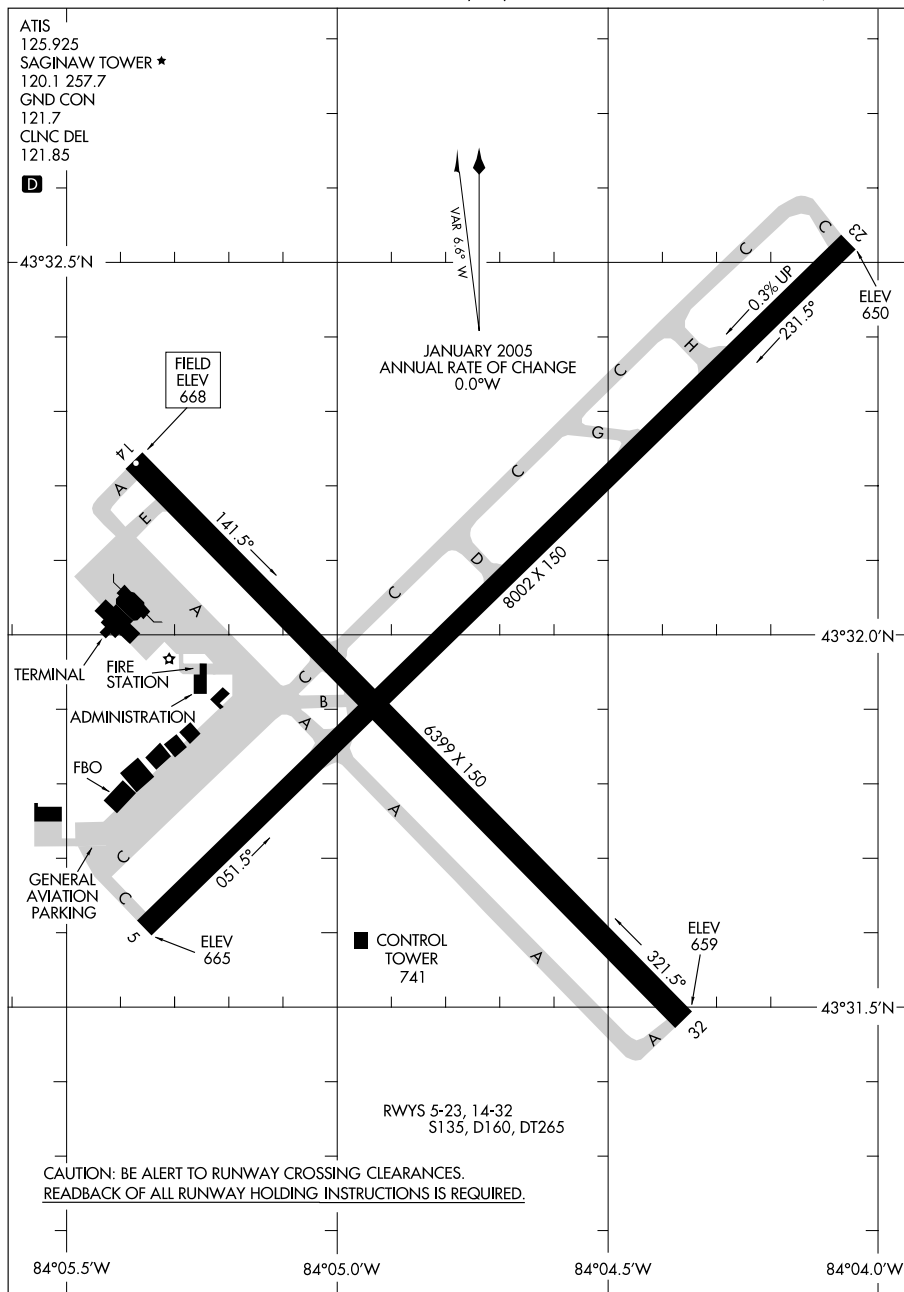
09295

PONTIAC, MICHIGAN
PONTIAC/OAKLAND COUNTY INTL (PTK)

09295

AIRPORT DIAGRAM

AL-648 (FAA)

SAGINAW / MBS INTL (MBS)
SAGINAW, MICHIGAN

AIRPORT DIAGRAM

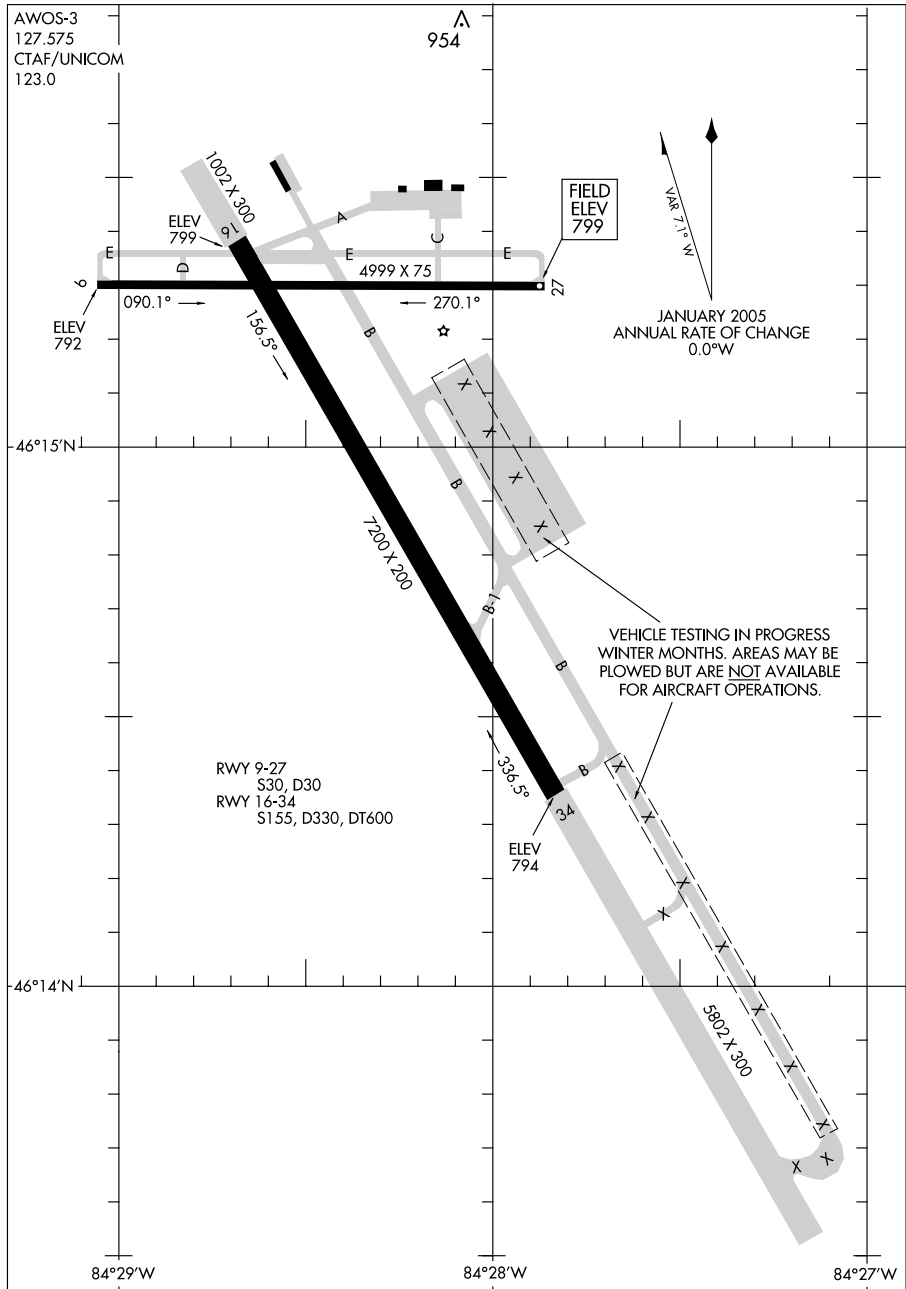
09295

SAGINAW, MICHIGAN
SAGINAW / MBS INTL (MBS)

09071

AIRPORT DIAGRAM

SAULT STE MARIE/CHIPPEWA COUNTY INTL (CIU)
SAULT STE MARIE, MICHIGAN



AIRPORT DIAGRAM

SAULT STE MARIE, MICHIGAN
SAULT STE MARIE/CHIPPEWA COUNTY INTL (CIU)

09071

05216

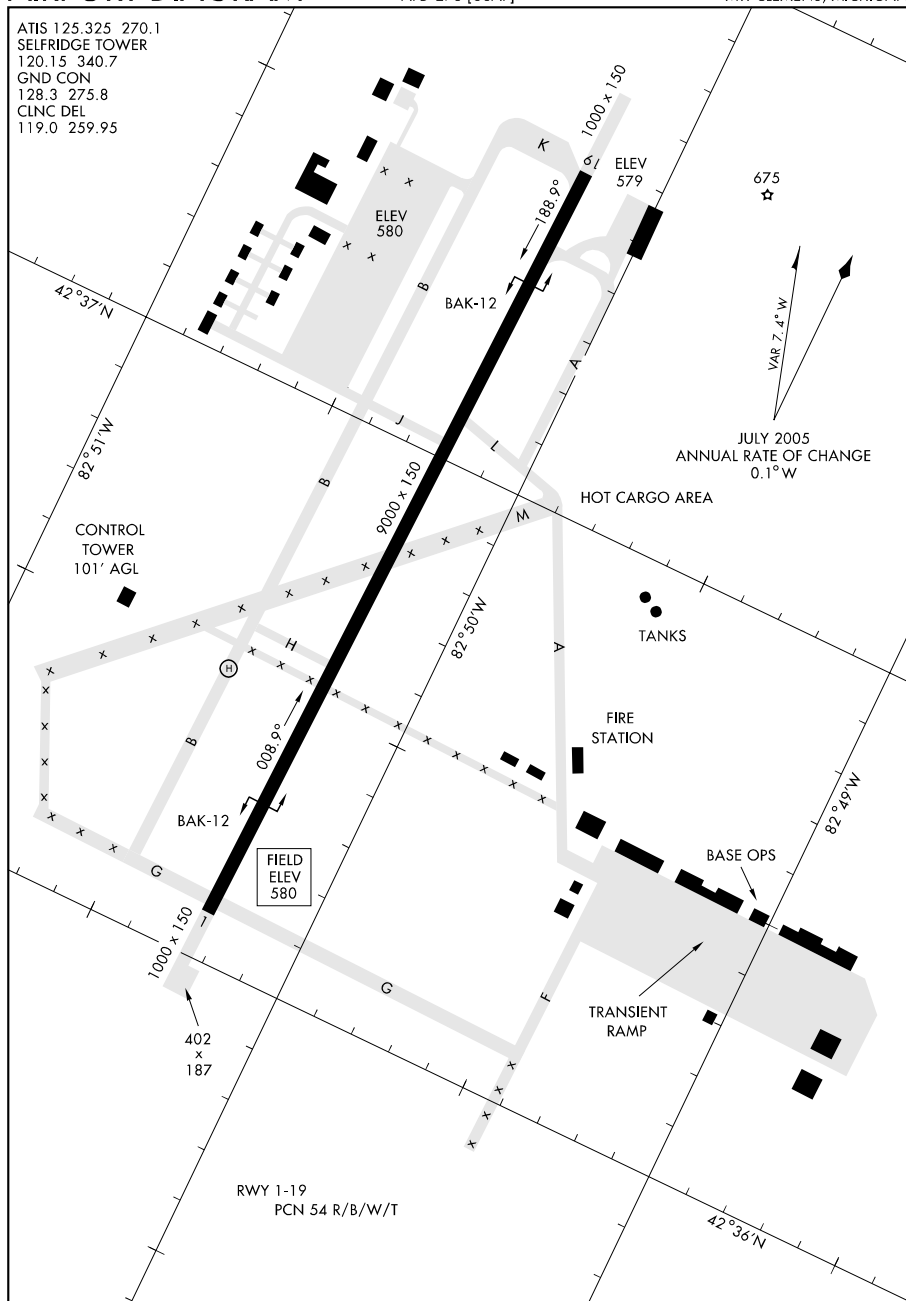
AIRPORT DIAGRAM

AFD-276 [USAF]

SELFRIDGE ANGB (KMTG)

MT. CLEMENS, MICHIGAN

ATIS 125.325 270.1
 SELFRIDGE TOWER
 120.15 340.7
 GND CON
 128.3 275.8
 CLNC DEL
 119.0 259.95



AIRPORT DIAGRAM

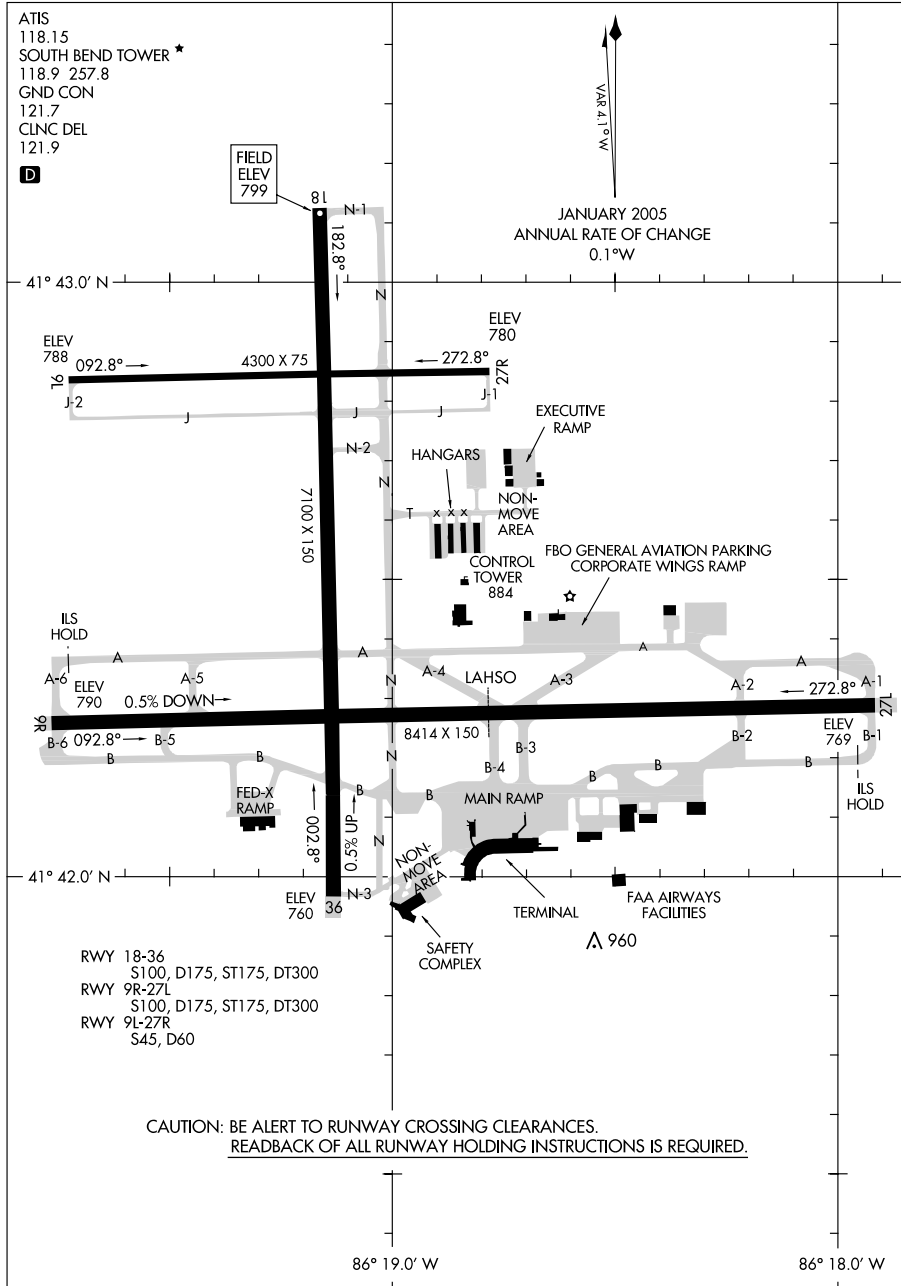
WGS DATUM

MT. CLEMENS, MICHIGAN
 SELFRIDGE ANGB (KMTG)

09295

AIRPORT DIAGRAM

AL-399 (FAA)

SOUTH BEND RGNL (SBN)
SOUTH BEND, INDIANA

AIRPORT DIAGRAM

09295

SOUTH BEND, INDIANA
SOUTH BEND RGNL (SBN)

09295

AIRPORT DIAGRAM

SPRINGFIELD/ABRAHAM LINCOLN CAPITAL (SPI)

AL-518 (FAA)

SPRINGFIELD, ILLINOIS

ATIS

127.65 270.1

SPRINGFIELD TOWER ★

121.3 257.8

GND CON

121.9 348.6

CLNC DEL

121.7

D

RWY 4-22

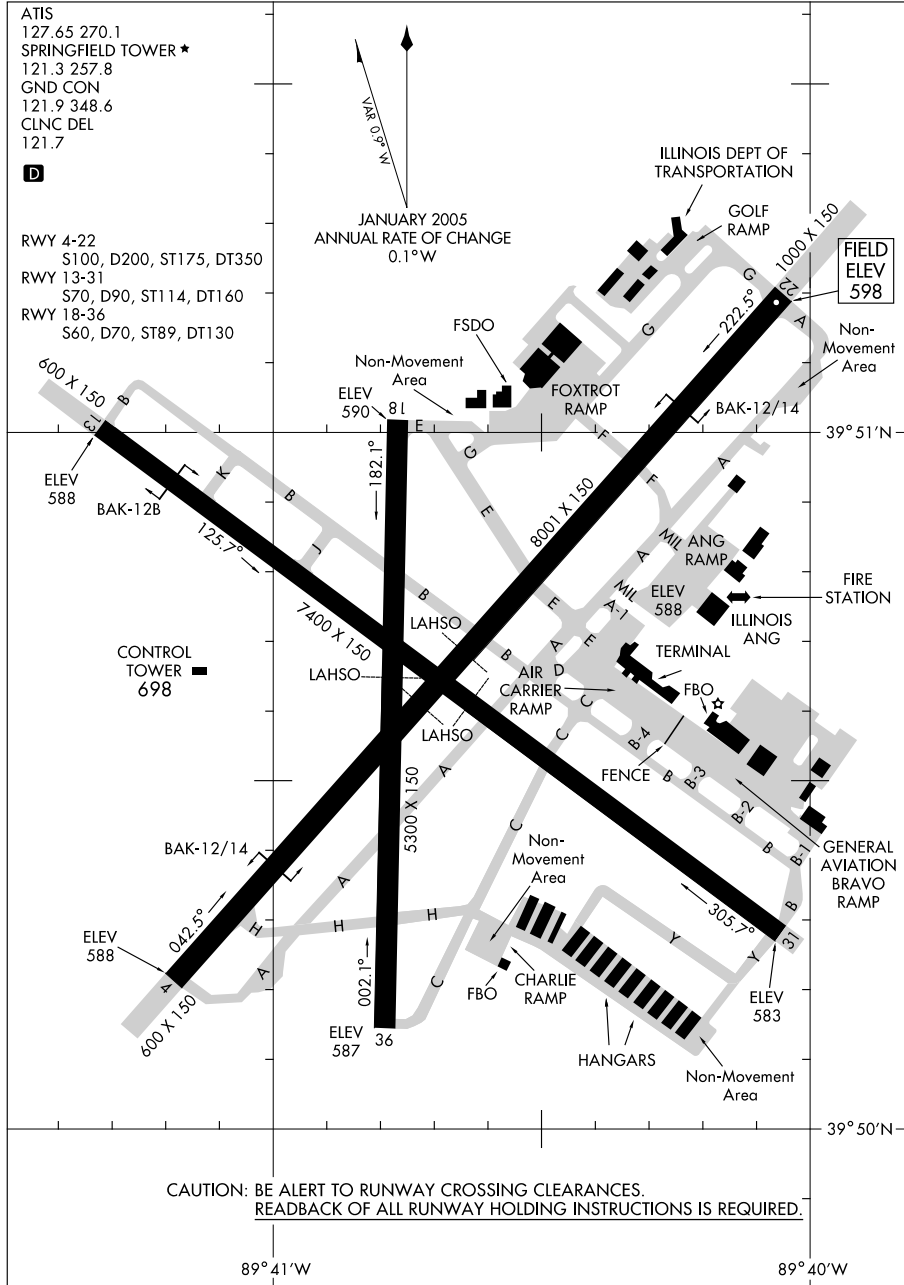
S100, D200, ST175, DT350

RWY 13-31

S70, D90, ST114, DT160

RWY 18-36

S60, D70, ST89, DT130



AIRPORT DIAGRAM

09295

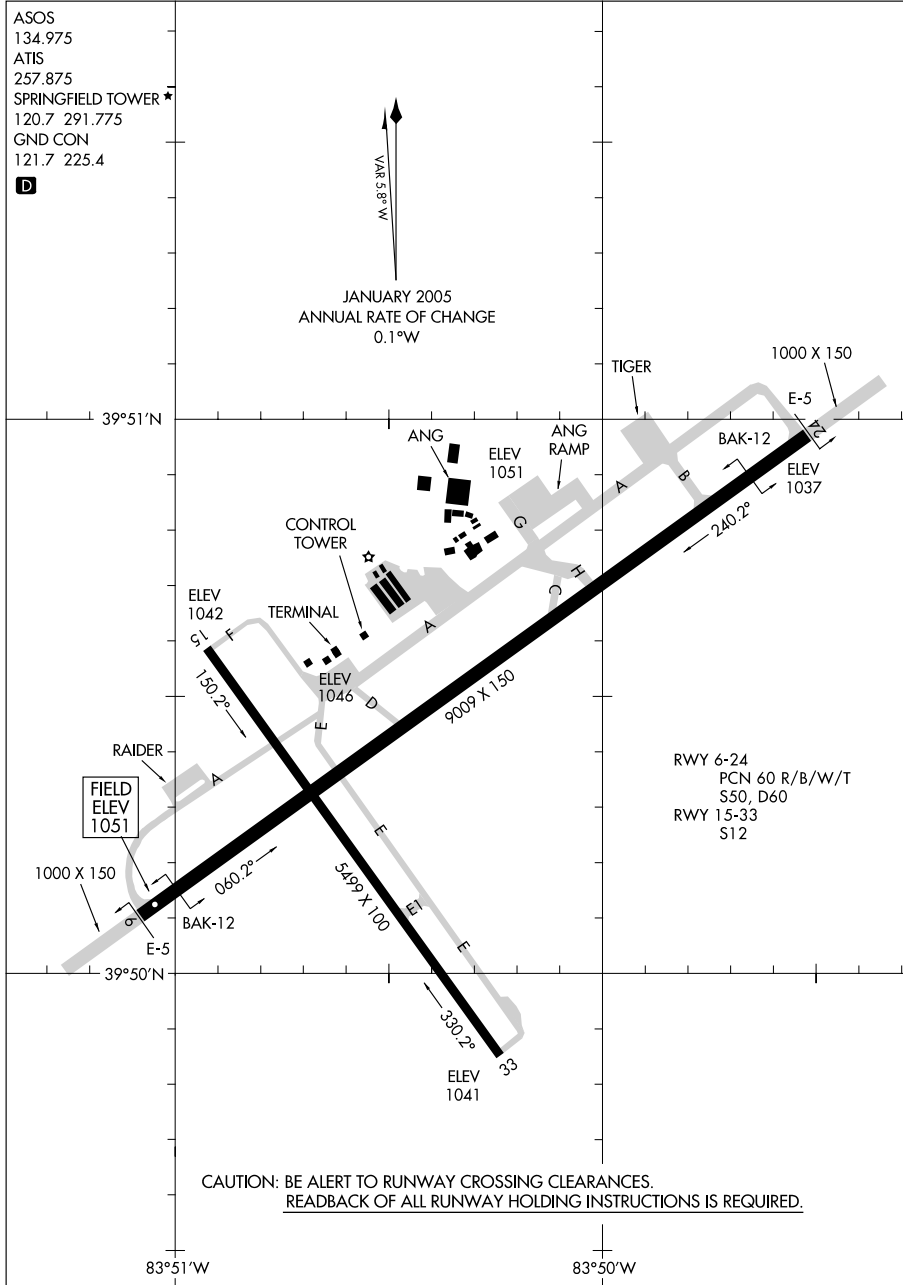
SPRINGFIELD, ILLINOIS

SPRINGFIELD/ABRAHAM LINCOLN CAPITAL (SPI)

09295

AIRPORT DIAGRAM

AL-958 (FAA)

SPRINGFIELD-BECKLEY MUNI (SGH)
SPRINGFIELD, OHIO

AIRPORT DIAGRAM

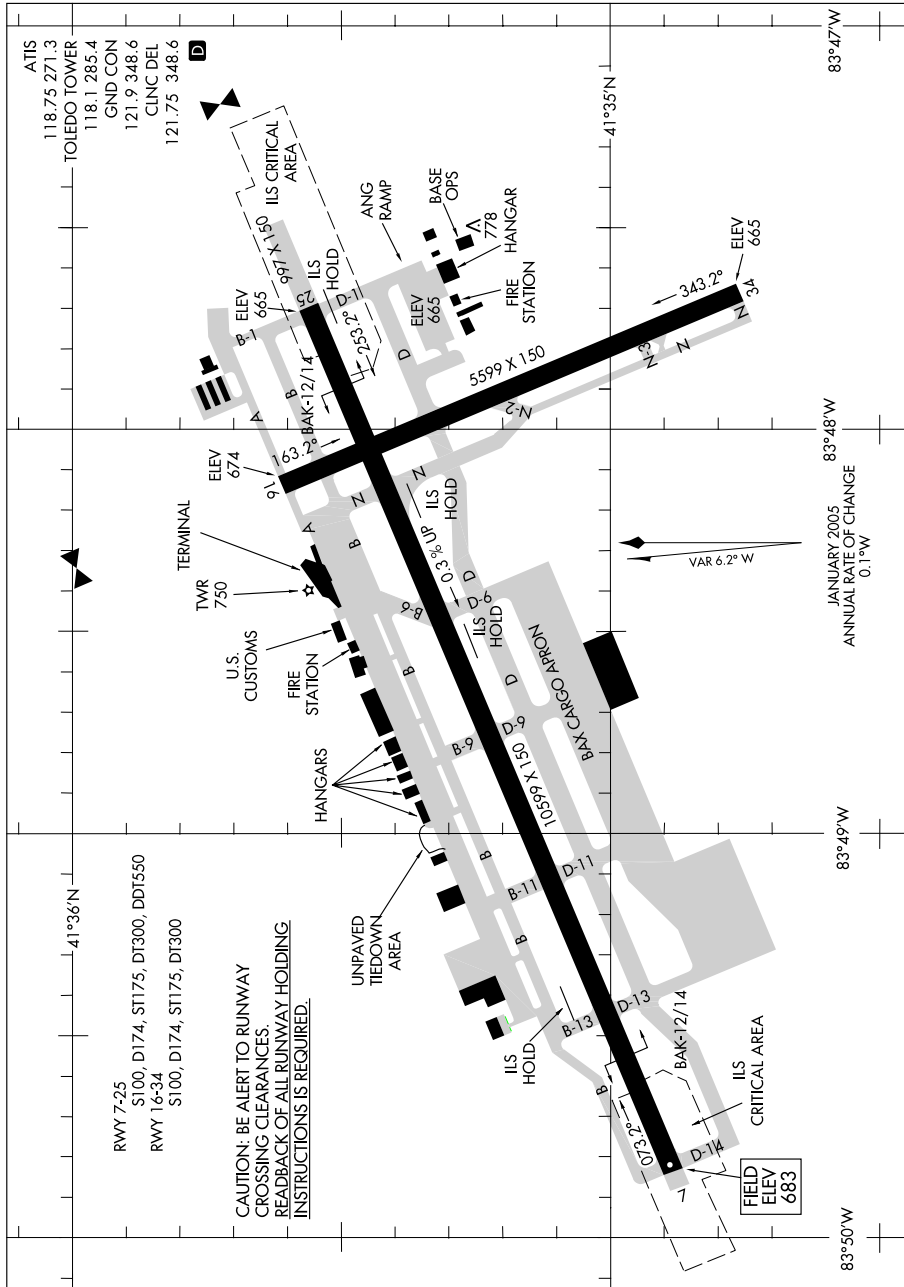
09295

SPRINGFIELD, OHIO
SPRINGFIELD-BECKLEY MUNI (SGH)

09295

AIRPORT DIAGRAM

AL-184 (FAA)

TOLEDO EXPRESS (TOL)
TOLEDO, OHIO

AIRPORT DIAGRAM

09295

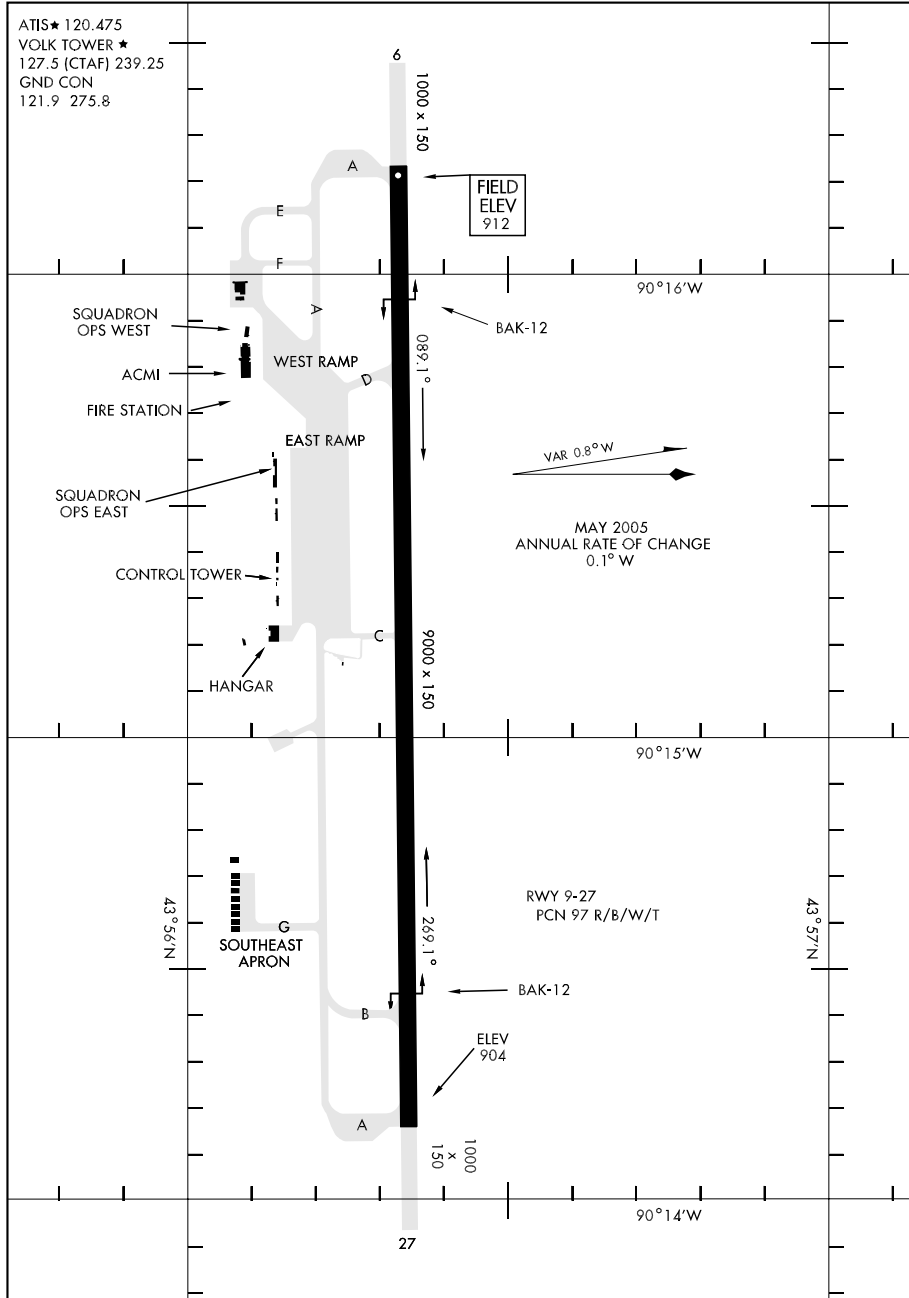
TOLEDO, OHIO
TOLEDO EXPRESS (TOL)

06271

AIRPORT DIAGRAM

AFD-714 [USAF]

VOLK FIELD (VOK)
CAMP DOUGLAS, WISCONSIN



AIRPORT DIAGRAM

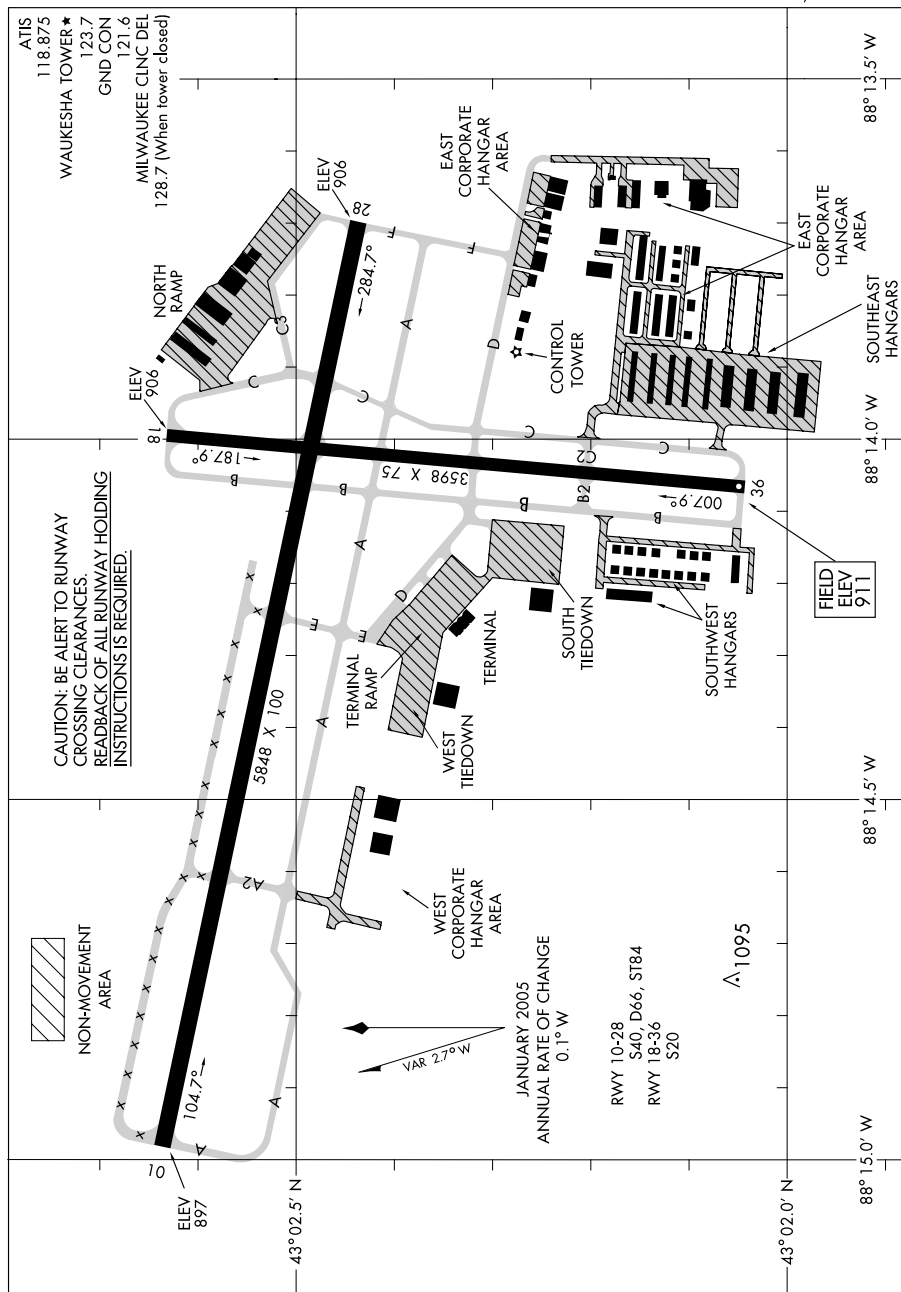
WGS DATUM

CAMP DOUGLAS, WISCONSIN
VOLK FIELD (VOK)

09127

AIRPORT DIAGRAM

AL-5078 (FAA)

WAUKESHA COUNTY (UES)
WAUKESHA, WISCONSIN

AIRPORT DIAGRAM

09127

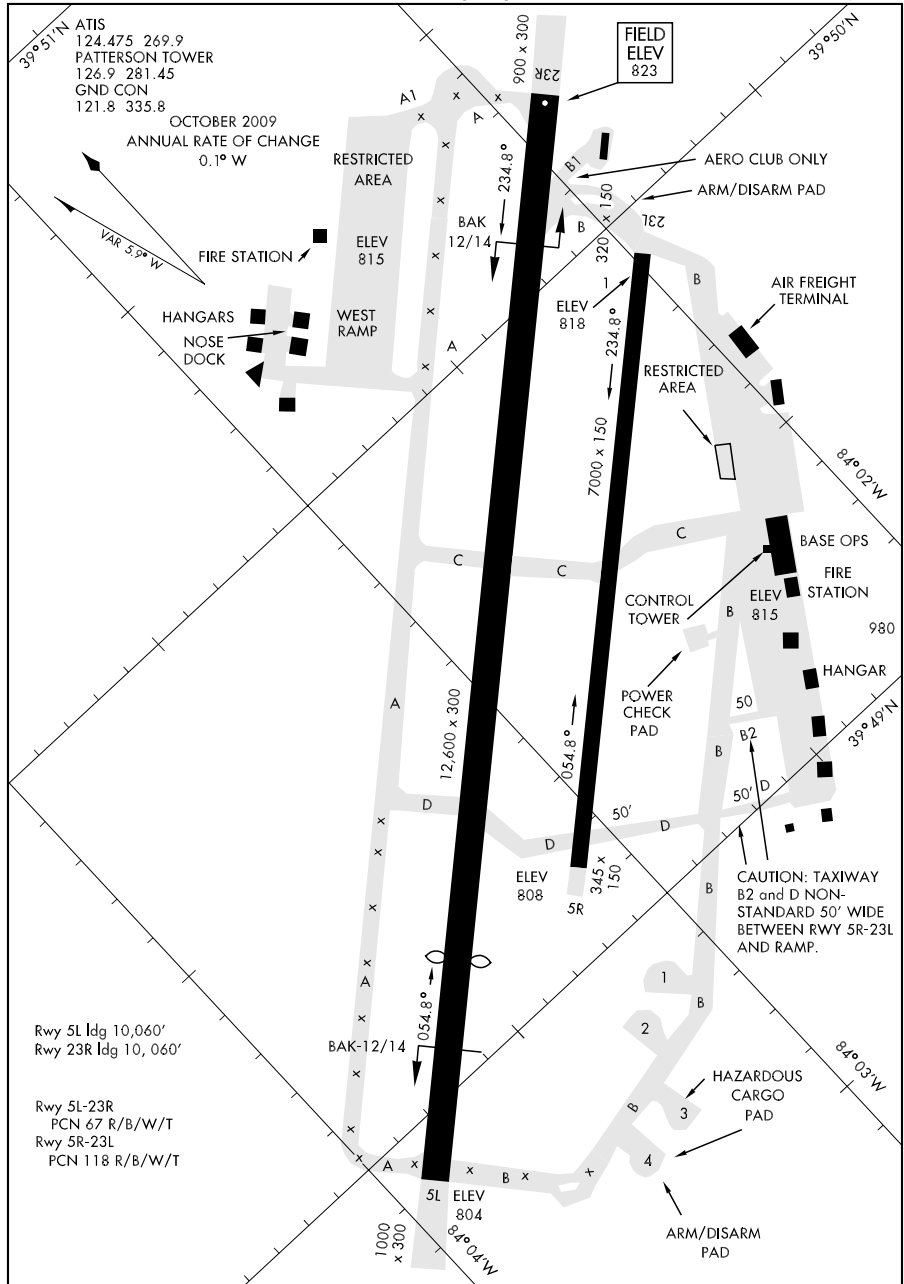
WAUKESHA, WISCONSIN
WAUKESHA COUNTY (UES)

09295

AIRPORT DIAGRAM

WRIGHT-PATTERSON AFB (KFFO)

DAYTON, OHIO



AIRPORT DIAGRAM

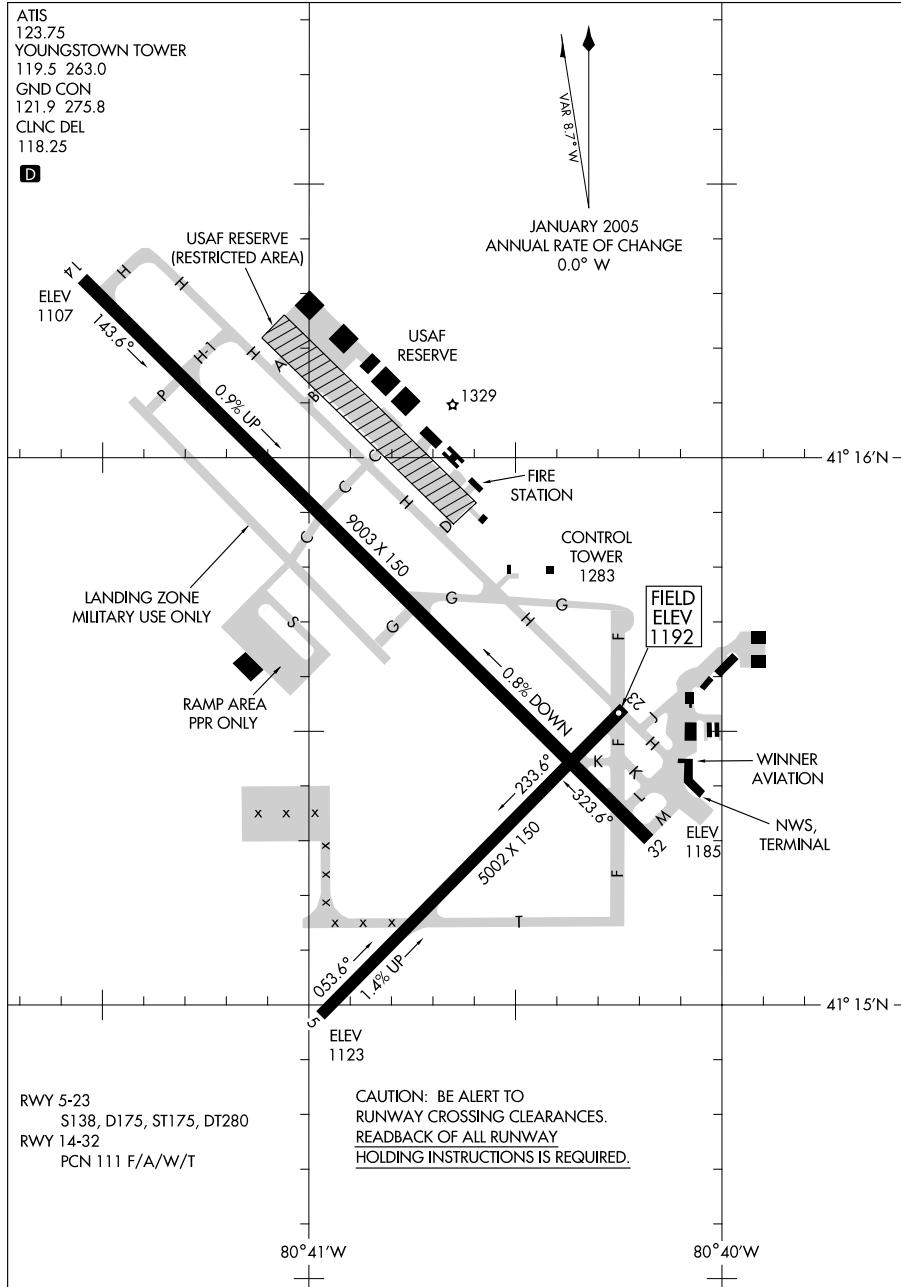
DAYTON, OHIO

WRIGHT-PATTERSON AFB (KFFO)

09295

AIRPORT DIAGRAM

AL-466 (FAA)

YOUNGSTOWN-WARREN RGNL (YNG)
YOUNGSTOWN-WARREN, OHIO

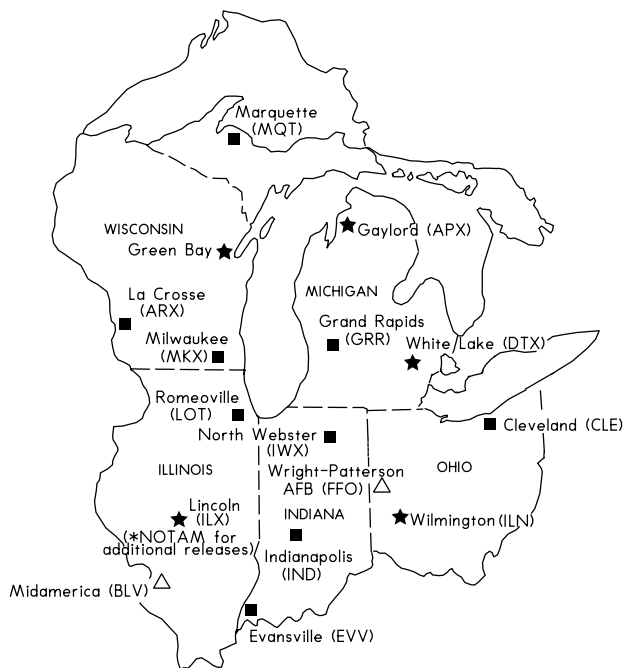
AIRPORT DIAGRAM

09295

YOUNGSTOWN-WARREN, OHIO
YOUNGSTOWN-WARREN RGNL (YNG)

**INTENTIONALLY
LEFT
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NATIONAL WEATHER SERVICE (NWS)
UPPER AIR OBSERVING STATION (UAOS)
AND
WEATHER RADAR NETWORK



LEGEND

- △ AVIATION WEATHER SERVICE (MILITARY)
- ▲ AIR TRAFFIC CONTROL RADAR
- ★ UPPER AIR OBSERVING STATION
HYDROGEN FILLED BALLOON RELEASES AROUND
1100 UTC AND 2300 UTC DAILY/RADAR
- RADAR ONLY
- UAOS-BALLOON RELEASES AROUND 1100 UTC
AND 2300 UTC DAILY
- OTHER NWS UPPER AIR STATIONS-BALLOON RELEASE
TIMES ARE FLEXIBLE BUT GENERALLY AROUND SUNRISE
AND/OR EARLY AFTERNOON

NOTE: FOR RELEASES LATER THAN 1130 UTC AND 2330 UTC, AND
FOR SPECIAL RELEASES AT OTHER THAN THE SCHEDULED
HOURS, AN AERONAUTICAL INFORMATION MESSAGE OR NOTAM*
WILL BE FILED.